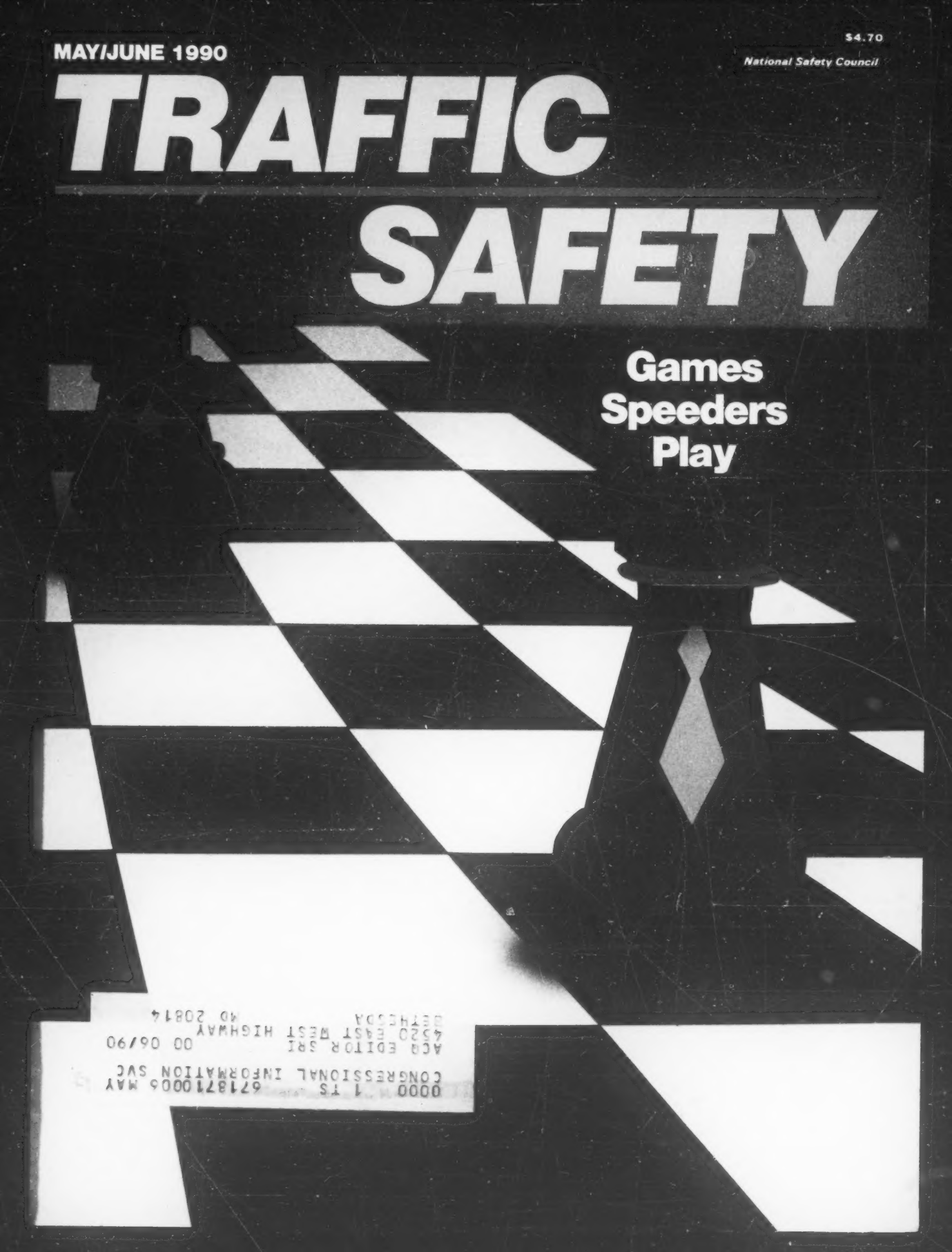
MAY/JUNE 1990

$4.70

National Safety Council

TRAFFIC SAFETY

Games Speeders Play



0000 1 TS 671871000 MAY
CONGRESSIONAL INFORMATION SVC
ACA EDITOR SRI 00 06/90
4520 EAST WEST HIGHWAY
BETHESDA MD 20814

Posters shown on this page—for Traffic and Motor Transportation programs—are actually printed in two or more colors. For additional posters in all areas of safety, please refer to the great variety illustrated in the National Safety Council Directory of Safety Posters.

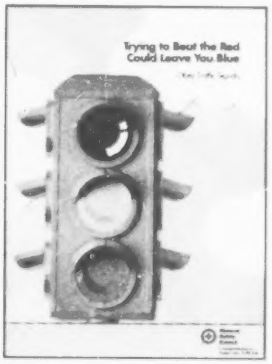
Automatic poster services on yearly subscription basis are available for various Motor Transportation divisions—write for full information.

NEW POSTERS

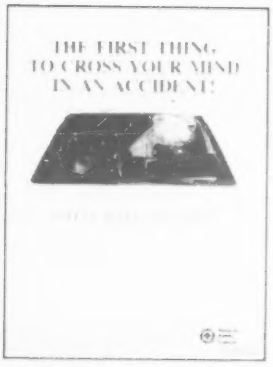
MAY/JUNE, 1990

	QUANTITIES		
SIZE	10	100	1000
Suffix "A"	$ .65	$ .40	$ .33
Suffix "B"	1.40	.95	$ .75

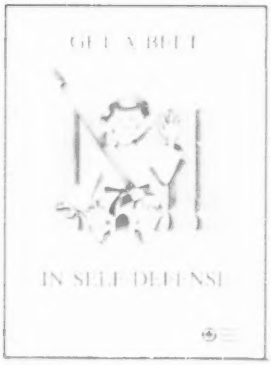
	QUANTITIES		
SIZE	10	100	1000
Suffix "A"	$ .85	$ .50	$ .45
Suffix "B"	1.75	1.20	$ .95



T-7673-A 4/C **8½x11½**

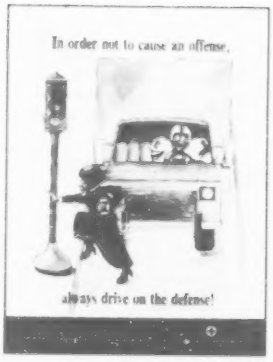


7655-A 4/C **8½x11½**



7656-A 4/C **8½x11½**

V-7670-A 4/C **8½x11½**



V-7671-A 4/C **8½x11½**

ORDER FORM MAY/JUNE, 1990

Poster No.	Quantity
T-7673-A	
7655-A	
7656-A	
V-7670-A	
V-7671-A	

Terms:
ONLY NATIONAL SAFETY COUNCIL MEMBERS ARE ENTITLED TO MEMBER PRICES. All orders eligible for 2% discount if payment is made within 15 days of invoice date; net 30 days. Service charge of 1½% per month on all invoices unpaid after 30 days. Shipments FOB Chicago. U.S. Federal Agencies: terms of current GSA contract apply Government agencies must use Purchase Orders.
ORDERS UNDER $25.00; ADD $3.00 SERVICE, HANDLING AND SHIPPING CHARGE.
FULL PAYMENT MUST ACCOMPANY ORDER.

SHIP TO: Organization _____

Address (No P.O. Box, Please) _____

City _____ State _____ Zip Code _____

Attention of _____ Title _____

For Office Use Only

MAIL ORDERS TO YOUR LOCAL COUNCIL, OR

National Safety Council

P.O. Box 11933
Chicago, IL 60611

Traffic Safety is dedicated to the prevention of traffic accidents and crash loss reduction through the presentation of objective information and responsible opinion to official agencies, public support groups, driver education teachers, and the motor transportation industry. The views expressed do not necessarily reflect the beliefs or policies of the National Safety Council, but they are presented in the conviction that the pressing social problem of traffic accidents can best be resolved through freedom of expression and open debate.

Publisher: Kevin H. Axe (312) 527-4800, ext. 7101

Editorial Director: Maureen Glass (312) 527-4800, ext. 7103

Coordinator: Richard Frisbie

Associate Editor: James W. Lahey

Art Director: Anne F. Malone

Cover: Constructs Studio, art; Terry Vitacco, photo

Director, Publications Marketing: Kevin Shanley, (312) 527-4800, ext. 7401

Advisors

Noel Bufe, Ph.D., *director, Traffic Institute, Northwestern University, Evanston, Ill.*; *vice president for traffic*, Walter D. Weiss; *group director of safety, Leaseway Transportation Corp., Birmingham, Mich.*; *vice president for motor transportation*, Neil Boot; *director, driver improvement programs*, Ted E. Dudzik; *traffic law enforcement and police records specialist*, Jan Hazlett; *school transportation safety specialist*, Tim Kennedy; *occupant restraint specialist*, Al Lauersdorf; *alcohol programs administrator*, John McCarthy; *manager, program development and training, driver improvement programs*; Harold Thompson; *manager, highway traffic safety services*; Lester B. Sokolowski; *director, motor transportation*, James Solomon; *administrator of training, driver improvement programs*; Richard L. Tippie; *director, transportation safety*.

TRAFFIC SAFETY (ISSN 0041-0721) is published bimonthly by the NATIONAL SAFETY COUNCIL, 444 N. Michigan Ave., Chicago, Ill. 60611. Copyright © 1990 by National Safety Council. Printed in U.S.A. Second Class postage paid at Chicago, Ill. and at additional offices. POSTMASTER: Send address changes to National Safety Council, 444 N. Michigan Ave., Chicago, Ill. 60611.

U.S. Subscription rate: $15.20 to members of the National Safety Council; $18.98 to non-members. Quantity and foreign rates available on request.

National Safety Council
Chartered by the Congress of the United States
David P. Curley, Chairman, Board of Directors
T. C. Gilchrest, President
Irvin B. Etter, Senior Vice President
Thomas J. Decker, Vice President, Corporate Relations and Secretary
John F. Kuchta, Vice President, Sales
Roger L. Pomerance, Treasurer

May/June 1990

National Safety Council

TRAFFIC SAFETY

Vol. 90 No. 3

THE ALL-TOO-USUAL 8
AL LAUERSDORF
Training alcohol servers not to pour themselves a headache

POLICE PARADOX 12
THOMAS FRISBIE
Cops contribute to traffic dangers while protecting public

GAMES SPEEDERS PLAY 16
MICHAEL MALONE
Detecting detector detectors

'FUNNY' DRUNKS ON THE ROCKS 20
MAURICE J. HANNIGAN
Public attitude turns serious on drunken driving

THE 21st CENTURY BEGINS TO ROLL 22
JIM CASTELLI
Feds will let the states pay the toll

CARS CAN REVERSE DRUNK DRIVERS 24
Engine starts only for sober driver

4 Two-Way Street
6 Today's Traffic
19 Events
28 Survey
29 New Products
30 Library
31 Shortcuts
32 Statistics

While the information and recommendations contained in this publication have been compiled from sources believed to be reliable, the National Safety Council makes no guaranty as to, and assumes no responsibility for, the correctness, sufficiency, or completeness of such information or recommendations. Other or additional safety measures may be required under particular circumstances.

Home Office: 444 N. Michigan Ave., Chicago 60611, (312) 527-4800

Printed in U.S.A.

Stock No. 311.03-030

More Light on Brakes

This space is for dialog with members of the professional traffic safety community, either through your letters or through excerpts from the kind of public comments experts might have put in letters to us if they had got around to it.

Address brief letters to Two-Way Street, TRAFFIC SAFETY Magazine, National Safety Council, 444 N. Michigan Ave., Chicago, IL 60611. Letters may be edited. Views expressed do not necessarily represent the opinion of the National Safety Council.

I AM WRITING about your report on the Advance Braking Light Device (September/October, 1989) based on research done by Paul Olson at the University of Michigan. Dr. Olson stated that this device combined with the center high mounted brake lamp could eliminate up to 75 percent of rear end collisions.

I suspect that the device he evaluated is very likely to have a quite negligible benefit in rear end crashes. Naturally, that is my opinion, but it is based upon the data he reported. It would be remarkable for a device that may activate the brake light .2 or .3 seconds earlier than a conventional brake light to have such an astounding effect.

It is perhaps somewhat misleading to suggest that any device, particularly such a simple one, can reduce any type of motor vehicle crash 75 percent. Unfortunately, things are a lot more complicated than that.

The research studies done to evaluate the high mounted brake lamp found a 50 percent reduction in rear end crashes in the test fleets that were used. That also seemed optimistic, but at least it was based on hard data of actual accident reductions. Current estimates by the National Highway Traffic Safety Administration indicate that the high mounted brake lamp may have as much as 22 percent reduction in one report, and I believe it was 17 percent in their most recent evaluation.

I am concerned that misleading claims do not end up in possible government regulations of devices that are far less beneficial, if in fact beneficial at all, than may be claimed on the basis of limited study.

Rudolph G. Mortimer
Professor
Department of Health and Safety Education
University of Illinois
Urbana/Champaign, Ill.

Kids in Pickups

There are laws for seat belt use. There are laws for child restraint seats. There are helmet laws. But every day I see children in the back of pickup trucks, where they have no protection at all in an accident. Why doesn't someone do something about that?

Ron Leap
Ft. Myers, Fla.

Traffic Facts

The remarkable decline in the national fatality rate is continuing, according to the latest figures. *Accident Facts* reports 2.46 deaths per 100 million miles of travel in 1988, the latest year.

The rate, which is interpreted as an indicator of progress being made in driver education, roadway engineering and police enforcement is notable for its long-range improvement. It dropped from 18.20 deaths in the 1920s to 11.42 in 1940, to 5.31 in 1960 and then to its present level of 2.46 deaths per 100 million miles.

Unfortunately, the fatality rate is a flawed method of measuring traffic conditions. Interpretations of the rate are based on the assumption that the number of deaths in the traffic system will vary directly with the volume of driving, an obviously false assumption, since it fails to take into consideration injury and property damage accidents.

The accuracy of the fatality rate itself isn't questioned. It is reasonably precise, but since fatal accidents make up less than one percent of the total accident toll it can't be called a complete picture of the traffic problem.

Milton Rose
Chicago

The National Safety Council Statistics Department replies: Mr. Rose is correct that the mileage death rate does not give a complete picture of the traffic problem. It is, however, the only measure of traffic

safety that is comparable from state to state and over time. Deaths are fairly easy to count because everyone agrees on what a death is.

The counting of injury and property damage accidents is complicated by differences in definitions and reporting or investigating practices from state to state. Even within a state there may be substantial local variation in the reporting of injury-producing crashes. For these reasons, the mileage death rate is used as the primary indicator of traffic safety.

Non-Work Zones

"Life Risky in the Closed Lane" (January/February, 1990) placed emphasis on motorists' refusal to adequately reduce speeds in construction zones. For drivers to properly respond to construction zone speed limits such signs must be accepted as relevant. Motorists' collective experience with speed limit signs is that such signs do not reflect current travel speeds nor do they bear a sufficient relationship to what is perceived as safe and reasonable.

There is seldom any construction or maintenance going on the areas posted. Construction and maintenance zones may be posted 24 hours per day when work is only being conducted eight to 12 hours per day, five days per week.

James J. Baxter, President
Citizens for Rational
Traffic Laws, Inc.
Dane, Wis.

Optional Hazards

Survey questions safety of new car features

IN A PREVIOUS issue (January/February, 1990), TRAFFIC SAFETY asked readers to supply their observations on a list of options currently being installed in autos. There was overwhelming support for the value of seat belts.

When Pam McKissick, safety officer in Dallas, passed out copies of the survey to a group of defensive driving students, everyone claimed to have personal knowledge of their efficacy.

Features such as air bags, anti-lock brakes, traction control and four-wheel steering apparently have not been around long enough for all of the survey respondents to have acquired anecdotal information about them. Those who had experienced the new safety features were enthusiastic. One driver described anti-lock brakes as "the best thing to come along for tractor-trailer drivers in 20 years."

A number of convenience features were criticized as possible safety hazards. CB radios were seen both as a distraction and a safety feature. One respondent commented that they were "helpful many times in accident situations on the highway." Another wrote, "I have observed traffic being warned of emergencies on the road, thereby alleviating circumstances that lend themselves to accidents."

Several readers fretted about car telephones. One claimed to know personally of a car that "left the road due to driver's preoccupation with a phone call on car phone."

Most other features seem to have figured in accidents in someone's experience at one time or another. A professional driver didn't like tinted glass because "it causes close calls at intersections. You can't make sure they see you if you can't see them and make eye contact."

Other features worried respondents whether or not they had personal knowledge of problems. Power windows, for example. "With loss of electrical power, you can hardly get out of the vehicle. If you are under water, tough!"

Inventor Honored

Award Named After Borkenstein

The National Safety Council recently unveiled the *Robert F. Borkenstein Award* at the 11th International Conference on Alcohol, Drugs and Traffic Safety in Chicago.

The award was named for Dr. Borkenstein in recognition of his lifetime work in the field of alcohol and drug misuse in relation to traffic and transportation.

This on-going award will be presented annually to others in the field of alcohol/drugs and traffic safety.

For nearly 50 years, Borkenstein has been an international leader in forensic sciences, criminal justice education and traffic safety. He invented the Breathalyzer in 1954. He has published more than 45 articles and has received numerous awards. In 1988, he was inducted into the Safety and Health Hall of Fame.

Qualifications for the award include a minimum of 25 years in the field of alcohol/drugs and traffic safety and a minimum of 10 years as an active and productive volunteer with the National Safety Council.

Nominating information for the award is available from Al Lauersdorf, (312) 527-4800, extension 8540.

In the photo, the council's Lauersdorf holds the award aloft as Borkenstein observes.

Get Smart

Intelligent cars on intelligent highways are getting closer.

The Highway Users Federation has developed a 10-year plan to get technology in place to reduce collisions, congestion and accidents. The group plans to:

- Establish a goal and funds to establish advanced traffic control centers and on-board emergency vehicle control systems in metropolitan centers of more than one million people;
- Reserve radio spectrum space for highway-vehicle communications;
- Examine all obstacles to full use of intelligent vehicle/highway systems (IVHS);
- Establish communications rules and standards for IVHS;
- Fund university centers for research, development, testing, education and training;
- Develop legislation that provides a $1 billion, 10-year authorization to support government's share of development.

The federation has published its recommendations in Smart Cars, Smart Highways: Toward More Efficient, Safer Driving. For more information, contact the federation at 1776 Massachusetts Ave., N.W., Washington, DC 20036, (202) 857-1200.

Dr. Mounir M. Kamal, an executive director at General Motors Research Laboratory, recently told the American Association for the Advancement of Science about IVHS wonders that could become facts. Among his descriptions of technology in the mill are:

- Night vision and placement-in-lane sensors for vehicles;
- Driver warnings for imminent skids, attempts to change lanes without signaling, imminent collision, following too closely and unsafe driving for conditions;
- Automatic controls for proper spacing behind the vehicle in front, keeping the vehicle in the center of the lane, slowing or steering around obstacles to avoid collisions, regaining stability after a skid, placing and coordinating vehicles in convoy.

Kamal noted that some of the features will require "a big jump" in sensor technology. He added that there were potential cost, legal and consumer acceptance obstacles. On the other hand, he says, "several of these concepts are production viable in the near future."

Standard for Standards Starts Race

New federal requirements for highway light standards have started a race among manufacturers of steel, aluminum and fiberglass poles.

Starting July 1, the federal government will stipulate that poles must break off more easily in case of collision. The standard was written with today's lighter cars in mind.

Most poles now in use are steel. So steel pole manufacturers are developing more sensitive break-away devices for their heavy poles.

Aluminum pole manufacturers realize their products are lighter, but more expensive.

Fiberglass poles are not extensively used now. But manufacturers say that fiberglass is light, easy to handle and non-corrosive. One maker has developed a pole that snaps off cleanly when hit.

Opponents say that fiberglass poles whip around in the wind too much to be practicable.

Helmets Save Bicyclists' Lives

As many as 75 percent of deaths from bicycle incidents could have been prevented if the victims had worn helmets, accord to the California State Automobile Association (CSAA).

The group also states that helmets reduce the risk of injury by 85 percent. In addition, the CSAA reports that bicycle incidents caused more than 138 deaths and more than 15,870 injuries in 1988 in California alone.

For more information, contact Traffic Safety Department, California State Automobile Association, 150 Van Ness Ave., San Francisco, CA 94102, (415) 565-2291.

N.C. Governor Wants Tougher DUI Level

James G. Martin, governor of North Carolina, plans to ask the legislature to reduce the legal allowable blood alcohol concentration (BAC) from .10 percent to .04 percent for bus and truck drivers.

According to the *Tar Heel Centerline*, Gov. Martin had proposed such a level to previous sessions of the legislature, but it failed to pass. Martin is also in favor of:

- An automatic 30-day license revocation after a DUI;
- Increased penalties for motorists convicted of drunk driving in a fatal crash;
- The same drunk driving laws for both juveniles and adults;
- A .08 BAC drunk driving guideline for all motorists.

The governor is motivated by the drunk driver toll in the state; in 1988, 635 were killed and 20,000 injured.

Students Experience Driving Drunk

A major auto company brings home the dangers of drunk driving to teenagers in 1990.

The Dodge Car Division of Chrysler Motors is sending its Dodge Drunk Driving Simulator on a nationwide tour of more than 50 high schools in 20 major U.S. cities.

According to Dodge, the simulator is a late model Dodge programmed to simulate the slower reactions of someone who has been drinking. Without endangering anyone, it allows students to experience the slowed reaction times caused by alcohol.

The students first drive a course under normal conditions. Then they drive the same obstacle course after an on-board computer slows down the braking and steering functions.

Corporate co-sponsors include Hardee's Food Systems, Inc., Goodyear Tire & Rubber and PPG Industries.

Older Driver Needs Outlined

The Highway Users Federation offers *Workshop on Roadway Improvements for the Mobility and Safety of Older Drivers and Pedestrians*, a publication that outlines the problems and needs of older drivers. The brochure recommends improvements including roadway geometrics, traffic operations and pedestrian safety innovations. The recommendations came from a federation-sponsored seminar with input from Rep. Glenn Anderson, D-Calif., chairman of the House Public Works and Transportation Committee; federal, state and local officials; industry executives and highway safety specialists.

To receive a free copy of publication, contact the federation at 1776 Massachusetts Ave., NW, Washington, DC 20036, (202) 857-1251.

For more information on older drivers, ask about information on the council publication, *Commitment to Action*. Call your service representative at (312) 527-4800, extention 6900.

DONT TAKE MY WORD FOR IT.....

.....PREVIEW OUR NEW

ADVANCED DRIVING SKILLS PROGRAM

.....OR ANY OF OUR DRIVER TESTING AND TRAINING VIDEO PROGRAMS FOR THIRTY DAYS WITHOUT OBLIGATION. I BELIEVE THAT YOU WILL AGREE THAT WE OFFER THE MOST DYNAMIC, COMPREHENSIVE AND *COST EFFECTIVE* VIDEO PROGRAMS AVAILABLE.

IF YOU DO NOT AGREE, RETURN THE UNDAMAGED PROGRAM OR PROGRAMS FOR EXCHANGE, INVOICE CREDIT, OR A REFUND.

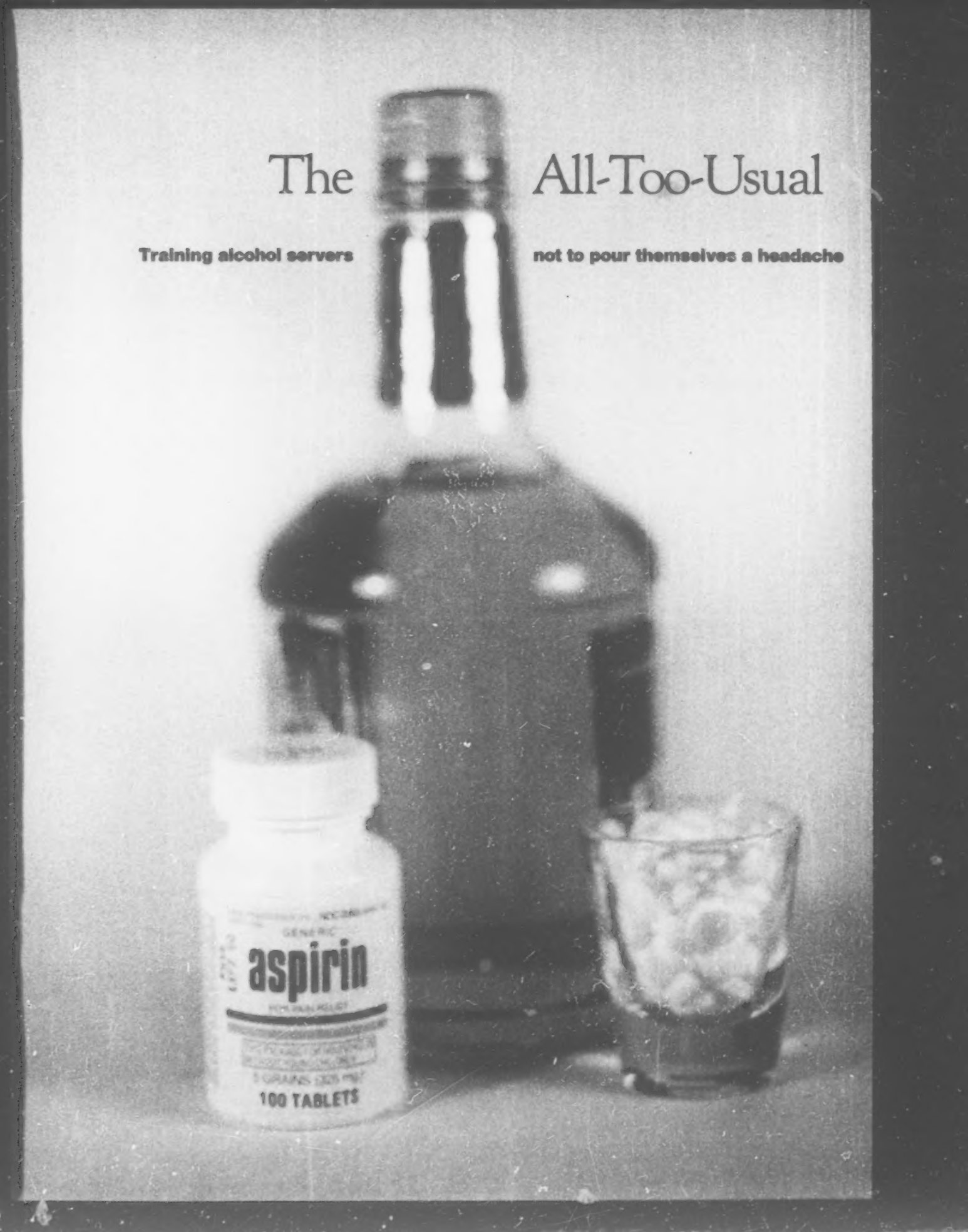
.....PLEASE CALL 800/327-6781 OR 813/785-0034 FOR INFORMATION AND A FREE CATALOG OF OUR VIDEO PROGRAMS AND PUBLICATIONS.

JACK K. WEAVER PH.D.
Executive Director

ADVANCED DRIVING SKILLS INSTITUTE
4660 BRAYTON TERRACE SOUTH
PALM HARBOR, FLORIDA 34685

The All-Too-Usual

Training alcohol servers not to pour themselves a headache



BY AL LAUERSDORF

YOU WALK into your favorite drinking establishment, expecting to meet your friends, only to find bedlam. Several altercations appear to have broken out; blood is dripping off the face of one combatant. The owner and a bartender, trying their best to defuse the fracas, seem to be losing the battle. Only a call to the police will resolve this mess.

That call to the police can be expensive. Not only is it a mark against the establishment's license but, in all likelihood, insurance premiums will rise or a policy may be cancelled. And if an innocent bystander is injured, a lawsuit could be in the offing. We can also assume that a number of paying customers have left with no intention of ever returning. Good customers, the kind a tavern builds its trade around.

Let's suppose this establishment's owner, manager and bartenders had been trained in alcohol-server intervention. Would this scene have become a reality? Probably not.

Alcohol servers and bar-management people, trained in intervention tactics, would have foreseen pending difficulties and been able to prevent the fighting. Too much alcohol can bring out the worst in some people; they can become nasty and negative, with inhibitions virtually gone and no sense of propriety remaining.

Alcohol, when used improperly, is a factor in many brawls, crimes and other anti-social behavior, especially incompetent driving with resulting collisions.

History of a Problem

History does not record a specific date for the discovery of alcohol. The presence of beer and wine has been uncovered in many ancient archaeological sites.

Until about 500 years ago, fermentation was the only process by which alcohol was produced. Then distillation was discovered in 15th century Europe. Suddenly the alcoholic content of beverages rose far above the 14 percent reached through fermentation. Drinks with 50 percent, and higher, alcoholic content now became available.

No longer was most alcohol use restricted to ceremonial or religious purposes. Problems within societies resulted and regulations for the production, distribution and use of alcohol became necessary.

Alcohol came to America in the early 17th century. Laws to punish drunkenness soon were passed; display in the public stocks was a favorite sanction for the drunkard.

Temperance advocates began promoting abstinence in the early 1800s, looking upon "demon rum" as an intolerable commodity in our young nation. Eventually the teetotalers won out and prohibition of alcohol was effected through passage of the 18th Amendment to the U.S. Constitution. Production and sale of alcohol became illegal as of 1920.

Before repeal of the Volstead Act, the law creating prohibition, in 1933 by passage of the 21st Amendment, drinking continued to be a favored activity by many Americans. Speakeasies abounded. Gangsters became wealthy through their control of the illicit alcohol industry.

Foresee problem, prevent a fight.

Laws Strengthened

Nothing seems to diminish the love affair millions of Americans have with alcohol. Which is fine, except when they drink and drive. Deaths and injuries on our highways continue. The laws in all 50 states have been strengthened in attempts to minimize the problem of impaired driving and its undesirable results.

Nearly 25,000 people are killed each year in alcohol-related collisions; another 1.5 million are injured. The cost of these crashes, deaths and injuries is a stunning $24 billion each year. Of those losing their lives in alcohol-related crashes, 11 percent are pedestrians who had been drinking and 20 percent were passengers in a drinking driver's vehicle. Another 17 percent comprised the non-drinking drivers, passengers and pedestrians. Drinking drivers accounted for 52 percent of the fatalities.

It is estimated that one of every 50 drivers on the road at any given time is illegally intoxicated. On weekend nights the ratio increases to one driver in ten.

Though much of the concern with in our society and government dwells on drinking and driving, alcohol may be an even greater factor in many crimes. Murders, spouse abuse and other domestic disturbances, burglaries and other felonies are commited under the influence of alcohol and/or other drugs. Estimates run as high as 80 percent.

Back at the Bar

Meanwhile, let's go back to the bar and see how all of this affects those businesses that purvey alcoholic.

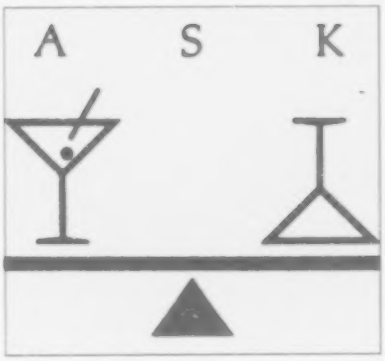
Whether you own and sell liquor in a tavern, restaurant, liquor store, convenience store, grocery shop or drug store, you can be held liable for the actions of the buyer/drinker if that person harms persons or property. "Dram shop" laws exist in about half of the states while others rely on common, or case, law to ascertain the responsibility for overserving or improperly selling alcohol.

Dram shop laws were first enacted in mid-19th century as part of the temperance movement. They established civil liability for saloon owners, often requiring the owners to bear financial responsibility for families of customers who had become habitual drunkards as a result of patronizing their taverns. Later, in some areas, it became popular for a spouse to have the picture of an alcoholic mate posted in bars so the mate would not be served.

The damage, injury or death of an innocent party by an intoxicated person need not have taken place on the premises of the bar owner cited for a dram shop offense. If it can be proven that the defendant sold or furnished the alcohol consumed by the party causing the injury, that the intoxicated consumer caused the injury, and that the inebriated person's excessive consumption helped cause the injury, the bar owner may be faced with an assessment of damages and license sanctions. Illegal sales to minors can often trigger such litigation.

Intervention

To forestall the possibility of dram shop actions, the managements of a



On weekend nights one driver in 10 has had too much to drink.

number of bars, restaurants and other alcohol-retailing establishments are arranging for server-intervention training for their employees. Such training originated in the late 1970s.

One of the first programs was initiated by the Wisconsin Office of Highway Safety with its bartender traffic safety workshops. Twenty-five such one-day programs were held in cities with populations of 40,000 or more and in other communities on special request. Your author was involved in the implementation of some of these earlier workshops.

In light of the experience with this program the City of Madison made bartender alcohol awareness training a prerequisite to licensing of bartenders in 1981. A 12-hour progam was designed to help reduce the drunk driving problem, decrease police calls to bars and to increase the professionalism of licensed servers.

During the past decade a number of server intervention programs have been developed. They are known by a variety of names or acronyms, many of them local or regional, with several marketing their program nationally.

Several states have enacted legislation requiring some type of intervention training by servers/sellers or necessitating the certification of training programs by the state.

Training servers reduces dram shop liability exposure for owners.

Al Lauersdorf is alcohol programs manager for the National Safety Council. For more information about the ASK Program, write to ASK Program Manager, National Safety Council, 444 North Michigan Avenue, Chicago, IL 60611.

The ASK Task

About two years ago the National Safety Council decided that, as a long-established organization within the safety and health community, a Council server-intervention program should be developed and made available nationally. After careful consideration and deliberation, the consensus was that a program was needed that would be short enough to be practical to expect attendance by servers. Such a course should have participant involvement, including student role-playing scenarios. But above all, it had to be a quality program providing quality instruction by quality instructors.

The result was ASK (Alcohol Server Knowledge). Because it provided many of the qualities we wanted in a server-training program, we based ASK on the "Responsible Alcohol Service" program created by the National Highway Traffic Safety Administration. The basic premise of ASK is that a knowledgeable server can prevent a customer from driving impaired by recognizing the impairment and discontinuing service. Servers are made aware of state laws and local ordinances that deal with the sale and service of alcoholic beverages. They are taught how alcohol affects the human body and behavior.

Sessions included in the four-hour course cover responsible alcohol service, the need for responsible service, preventing intoxication and intervening with intoxicated patrons. A fifth hour of training is available for owners and managers.

ASK training materials consist of an instructor manual, four videos (on one tape), a student handbook, registration card and certification of completion and instructor certification. Pre-tests and post-tests are administered, with a passing grade required on the post-test to gain a certificate of completion. The hour of role-playing allows students to apply intervention tactics they have learned in the class. Instructors are trained by the National Safety Council and must be certified before they can teach server classes. In order to be certified, an instructor must be affiliated with a certified ASK training agency.

The Council provides national advertising as well as promotional and marketing materials to the ASK agen-

cies. Although the program is in its infancy, we will have certified training agencies in 30 or more states by the end of 1990, with an ultimate objective of establishing agencies in all states and some Canadian provinces.

This description of the Council's ASK program gives you a brief insight into a server-training program. A majority of the 50 U.S. states have had legislative proposals requiring server training. It appears that passage of such laws is imminent and will serve as an effective countermeasure to drinking and driving. With the welcome support of organizations such as Mothers Against Drunk Driving (MADD), lawmakers will give strong consideration to alcohol-server intervention-training requirements.

Bartender Tips

1. Prohibit reduced drink prices during Happy Hour.
2. Prohibit drinks with more than two ounces of alcohol.
3. Prohibit sales of "doubles" or "triples."
4. Prohibit sales of "doubles" or "triples" late at night.
5. Prohibit sales of drinks in rounds.
6. Require customers to be alerted about complimentary drinks before they're served
7. Require closing bar an hour before establishment closes.
8. Prohibit last calls.
9. Require servers to collect for drinks after every round.
10. Sell by the drink only, not in pitchers.
11. Prohibit customers from leaving the premises with drinks.
12. Require that non-alcoholic beers or wines be available.
13. Promote non-alcoholic beers, wine or cocktails.
14. Provide free coffee late at night.
15. Provide free non-alcoholic beverages to "designated drivers."
16. Provide free non-alcoholic beverages to patrons who have been drinking.
17. Provide free or discount food during Happy Hour.
18. Provide table snacks at all times.
19. Provide table snacks at certain hours.
20. Provide at least light food service anywhere alcohol is served.
21. Require that the IDs of patrons under 25 be checked.
22. Refer questionable cases to the manager.
23. Require patrons to verify in writing that their IDs have been checked.
24. Provide equipment to detect fake IDs.
25. Prohibit minors from being in areas where alcohol is served.
26. Prohibit service to adults who give minors alcoholic beverages.
27. Prohibit employees from serving intoxicated or underage patrons.
28. Discipline or fire employees who serve intoxicated or underage patrons.
29. Require server training in responsible beverage service practices and policy.
30. Establish clear and uniform penalties for violating beverage service policy.
31. Require managers to support servers' intervention efforts.
32. Prevent managers from ordering servers to provide alcoholic beverages to intoxicated patrons.

The police officer who parked his squad next to a fire plug and several feet from the curb may be in hot pursuit of a vicious criminal. Even so, passersby can't help noting another example of driving behavior that would get them a ticket.

Police Paradox

Cops contribute to traffic dangers while protecting public

BY THOMAS FRISBIE

Police traffic chases killed 255 in one year.

DEADLY FORCE didn't cross David S. Melind's mind in 1986 when he decided to flee a police officer who caught him speeding in the Chicago suburb of Hoffman Estates.

The 17-year-old runaway, who had slept in his car the night before, knew he would be sent to a state youth home if police found him. So he led police on a chase at speeds of up to 85 m.p.h. in rush hour traffic. Finally, swerving around a road block, Melind found himself barreling toward a state trooper standing with a drawn gun on the shoulder of the highway.

It was a case of "deadly force equal to deadly force," an Illinois state police spokesman later said. That time, the deadly force claimed the life of the trooper.

Today, police officials carefully regulate the deadly force of police firearms. And law enforcement agencies across the nation also are beginning to write policies and debate ways to control the deadly force of speeding vehicles in police chases. Such policies, many feel, will help police lead the way to safer highways.

"The issue of deadly force with a motor vehicle, a firearm, a nightstick, a flashlight—it's all related," said William Carter, executive director of the Minnesota Board of Peace Officer Standards and Training. "What is happening in relation to (debate over) pursuing is very reminiscent of what was occurring in Minnesota 10 to 15 years ago relative to firearms and shootings."

To help regulate police pursuits, Minnesota now requires that all police chases be reported to the state. Since Oct. 1, 1989, every police department in Minnesota has had to have a written policy on chases.

"Legislators were becoming concerned with the nature of police pursuits and their outcomes," Carter said. "There were a couple pursuits that ended in death that really caught the attention of the legislature."

Pursuit Risky

It's an area that needs careful attention, law enforcement officials agree, because a police pursuit can be very risky, especially in crowded areas. Some 255 people died in police chases nationally in 1987, the most recent year for which totals are available. Despite the debate over the deadly force of speeding vehicles, people have continued to die. In 1988, three Los Angeles police officers were killed speeding in response to an emergency call. In South Carolina, an 86-year-old woman was killed as she sat in her front yard when a speeding police car careened out of control. In Ohio, a man being pursued by police smashed into a car, killing five members of a family. Two teenagers were killed and a third was injured in Wood Dale, Ill., after a crash ended a police chase that had exceeded 100 m.p.h. In Rhode Island, two young women fleeing police died after crashing into a utility pole. In Pennsylvania, three 19-year-old men died in a crash after they sped away to avoid a traffic citation.

The personal toll of such crashes was vividly illustrated in April, 1987, in a cramped courtroom in Wheaton, Ill., when a jury convicted David Melind of murder for his role in the chase that resulted in the state trooper's death.

'How do you know that it's not Son of Sam?'

Melind, stunned, slumped face-down onto a table in the courtroom. His father, seated behind him, sobbed loudly, "No! No! He's a good kid, he's good! He's so young. I just can't believe it!"

Shortly afterward, the father of the slain trooper sobbed in the hallway outside the courtroom as he talked to reporters. "You raise a good kid for 27 years and some bum takes him off the street. The verdict can't bring my son back."

"I feel like my life was wiped out," the trooper's wife said. "When I go home, it's an empty house. .... I'm afraid of its emptiness."

Melind himself told the judge, "I didn't mean it. I never hurt anybody in my life. I would never want to hurt anybody."

Cars Like Bullets

Could such an incident have been prevented? Can police do more to rein in the deadly force of speeding autos running through red lights or spinning out of control toward other motorists caught unawares? Police have described autos traveling at high speeds in a chase as 3,000-pound bullets. But considerable debate remains over when it is appropriate to unholster such weapons.

Dennis M. Payne, former deputy director of the Michigan State Police, believes much of the criticism of police chases is fueled by people with "a hidden agenda."

"Police officers are sworn to uphold the law and ... (to) protect life and property, but to do that they sometimes to have to go fast," Payne said. "The media writers, etc., over the years have led people to believe police officers doing their jobs are horrendously dangerous to everyone concerned. ... I don't think the risk is that high."

Payne thinks the hazards of pursuits are over-emphasized while the benefits are overlooked. Now a faculty member at Michigan State University's School of Criminal Justice, Payne is gathering data about police pursuits "to help police agencies develop good, sound policies."

One of the principles Payne adheres to after 25 years of engaging in pursuits, supervising pursuits and writing pursuit policies is that felons often are apprehended after a chase that begins with a minor traffic violation.

"Some (police departments) seem to to have a blanket philosophy of chasing only serious known offenders, but I have yet to see one who carries a placard in the back window saying: 'I'm a felon.' How do you know that it's not Son of Sam? There are some risks inherent in having a safe society. The risk in not chasing at all is we're open to all the predators."

Avoid Trivial Pursuits

Geoffrey Alpert, in contrast, believes police should go to great lengths to avoid trivial pursuits.

"We are still chasing traffic offenders and risking lives far more than is necessary," said Alpert, a professor at the College of Criminal Justice at the University of South Carolina. "Pursuit can be more dangerous than use of a weapon. You've got a car weighing two tons going 60 to 70 m.p.h. as opposed to a little bullet that usually doesn't hit anything. A

lot of police officers never have fired a gun on the street, but I have never met an officer who never has been in a pursuit."

Just when should a police officer risk the deadly force of a chase? To help answer that question, Alpert compiled one of the few detailed studies of police pursuits. He analyzed more than 1,000 chases in Dade County, Fla., and evaluated hundreds of chase policies from around the nation. His conclusion: Too many chases involve police officers who merely have a hunch that the motorist is a serious criminal.

"You know what you've got. If it was a traffic violation, then it was a traffic violation. There is no room for speculation, no room for an officer who thinks this guy might be a bank robber. All he knows is what he has seen, or what he has been told. If the police officer saw someone drive through a stop sign, that's one thing. If he saw someone shoot a clerk at a convenience store, that's something else. Life is more important than property, even if it is some sort of a felony theft. It is more important to preserve life than to chase someone for property crime."

One chase maybe solved at least two homicides.

Many unnecessary chases are initiated by police departments where there is no policy governing pursuit, said Alpert, whose research is detailed in the book *Police Pursuit Driving: Controlling Responses to Emergency Situations*, which was scheduled to be published this spring by Greenwood Press in Westport, Conn.

"The police departments without policies are frightening. Not to have a policy is to have a policy of no policy. The ones who decide not to have a policy, they really have a policy of deliberate indifference. There are more than you might think."

When Not to Shoot

In 1985, the U.S. Supreme Court ruled in *Garner v. Tennessee* that police could not shoot at a fleeing felon, but could fire only when defending their own lives or the lives of somebody else.

"Before the Garner decision, the argument police had was: If we don't shoot fleeing felons, all felons will flee. And they don't," Alpert said. "Too many chases have occurred where the officer thought, this guy could be a bank robber or could be a rapist, and we are going to chase him. And maybe it was a kid who just borrowed Dad's car without permission. Then you see two people dead. There are hundreds of cases like that."

Alpert believes police departments need to take four steps to properly control pursuits.

First, a department needs a very strong policy. Second, department officials must make sure police officers are trained to follow that policy. Third, each pursuit must be properly supervised and controlled. Fourth, there must be some follow-up, some procedure that establishes accountability for those involved in the chase.

"A lot of chases that end without injury are bad chases. And a lot that end with injury are good chases. The outcome isn't always the best way to look at it," Alpert said.

Some police officials, however, caution that reining in the deadly force of a police chase might give a green light to criminals who no longer fear pursuit. For example, Laimutis Nargelenas, assistant deputy director of the Illinois State Police, believes some law enforcement agencies are getting too conservative about pursuits.

Fewer Chases

"Some departments are getting close to the point of no chases at all," Nargelenas said. "That concerns most of us, in that any time someone doesn't want to stop they will just take off. It can cause you real problems, maybe getting people to flee police who wouldn't normally even think about it."

In February, a successful police chase that started with a speeding violation on Interstate 57 in Illinois and that ended with a crash — but no injuries — on a nearby country road yielded information that promises to solve at least two homicides, Nargelenas said.

"You never know in these pursuits why the person is running. The officer may be thinking it's only a traffic stop, but for all we know the person just committed a homicide someplace. Or it can turn out to be a young kid who doesn't have a driver's license."

The uncertainty of police chases means that officers must be well-trained and that each chase should be carefully supervised, Nargelenas said. More frequently than in the past, supervisors are calling off chases that are too risky, he added.

'Police departments without policies are frightening.'

"It's the same thing as use of deadly force. Police officers are trained how to shoot a weapon. The vehicle is also a deadly weapon. The officer needs to know how to drive a vehicle properly, when to pursue and when not to pursue. If, for instance, life is being endangered, we are going to back off. To catch this person and to cause a loss of life is not a reasonable situation."

Lt. Arthur Anderson, manager of special projects and research for the California Highway Patrol, said his agency's policy is to pursue suspected felons and also chase those suspected of misdemeanors "until it endangers the public."

New Resources

But new resources can make it safer for police to conduct chases on the state's 140,000 miles of roads, Anderson said. For example, the California Highway Patrol now has helicopters stationed in Fresno, Los Angeles, Sacramento and San Francisco. "Once you get air support, they can generally direct units from the air and stop pursuing at high speeds on the ground," he said.

William Carter said his efforts to coordinate pursuit policies in Minnesota have shown there is a need for training systems that simulate police pursuits.

"There is simulation training that helps police officers decide whether to shoot. It measures the individual officer's reaction time and whether the reaction is appropriate. A simulated scenario is 30 seconds long, and from there they are given another scenario, but the outcome is different. That type of training is desperately needed for the area of police pursuit."

Good Guys, Bad Examples

COMPLICATING matters, police must keep in mind that there is more than one deadly force imperiling motorists. The way that police drive their cars, and whether they wear seat belts, can set an example for other motorists that can have an impact on highway safety long after police have left the scene.

For that reason, Charles L. Spilman, president of the Detroit nonprofit group Traffic Safety Now, is waging a campaign to get more police officers to wear seat belts during pursuits, as well as at other times. Spilman said his organization now is doing a survey and creating discussion groups to encourage police officers to wear seat belts.

"We have fairly good evidence that where policemen are seen wearing seat belts, the general public does look at them as role models. I believe that officers have a very high degree of responsibility for buckling up, and I really don't know [why] an officer would want to be exempted from that law."

In some of the 33 states where seat belts are required, police have sought an exemption from the requirement, Spilman said.

Traffic police have known for 40 years that the presence of police can affect how motorists drive, said Kent Milton, spokesman for the National Highway Traffic Safety Association.

"There is an objective of this agency to encourage police personnel all over the country to use seat belts because it does have a roll-modeling effect," Milton said.

In California, a special committee of law-enforcement officials is traversing the state to encourage police to wear their seat belts, said Don Hinton, commander of the planning and analysis unit for the California Highway Patrol.

David Carter, associate professor of criminal justice at Michigan State University's School of Criminal Justice, said police have a long way to go before they are universal role models for highway safety.

"First of all, it is the rare officer who wears a seat belt unless the officer has someone with him who thinks he ought to," David Carter said. "The two most common reasons they give for not wearing seat belts are, one, that they have to get out of the car fast and, two, that it gets in the way of their gun.

People Complain

"We know that people will complain about police driving habits. It is just my observation over the years as a former police officer (in Kansas City, Mo.) that police officers by and large are notoriously bad drivers, particularly municipal police officers.

"One reason is that they know they are not going to get a traffic ticket while they are on duty, and so that threat of enforcement is taken away. Secondly, they take police cars places where cars were never meant to go. It's easier to drive down an alley than to get out and walk. I think that is why you see a lot of police cars with dings and creases."

Police wearing seat belts are role models for public.

Another traffic-safety issue that David Carter said needs more attention is the proliferation of computer terminals in squad cars. Police use the terminals for license plate number checks, non-emergency dispatching, transmitting alert information and car-to-car messages.

"I have ridden with officers who were trying to get messages over a computer terminal. They take their eyes off the road, or sometimes they just stop where they are in the middle of the street to try to type.

"Most of them are not touch typists and it's hard to do anyway, so instead of concentrating on driving, they are thinking about the protocol for entering the right numbers into the computer and then watching to get response back."

How much can police lower the risk of deadly force on highways?

Quite a bit, both by wearing seat belts and following sensible pursuit policies, Nargelenas said. And members of the public should remember that patrolling and police chases are part of everyday life on the highways, he said. The dramatic long chases that draw publicity are rare, he added.

"The types of things you see on TV don't happen that often," he said.

Top Cops Must Lead

As field troops are role models to the public, commanders are role models to the officers within their command. Input and active participation from top management should be solicited during the developmental stages of a safety belt use policy. Managers and commanders need to understand the impact of any mandatory use program and the importance of the issue. Budgetary considerations, monitoring, and the reporting of use, along with sanctions imposed for noncompliance, will most likely fall within their areas of concern. Understandably, they need to be involved from the outset in order to ensure they will support the implementation and enforcement of the policy.

Commanders set the tone and temper for those who serve under them. A particular position or policy will only be accepted and, therefore, meet its intended objective when it is viewed by the troops as a matter of importance to the "brass." A paper policy, or one without meaningful sanctions, will not convey the importance of this issue to the troops, and will fail to demonstrate management means business. It follows that management must take the lead by announcing its intention to require belt use and to ensure continued belt use through training, education, monitoring and sanctions for noncompliance.

Excerpt from "Occupant Protection Systems and Trends for Police Managers," National Highway Traffic Safety Administration, August, 1989.

Time out: In a small town in northern Illinois one-stop service for traffic-game players in need of coaching includes a driving school, an auto insurance agency, the county DUI program and a family counselor.

Games Speeders Play

Detecting detector detectors

BY MICHAEL MALONE

A SPANKING NEW tollway, Interstate 355 in west suburban Chicago, was officially opened to traffic at midnight on Dec. 23, 1989. For the first two days of operation the ride would be free, but the speeding tickets wouldn't be. Just 12 minutes after it was opened, Illinois state police issued their first ticket for speeding on the new thoroughfare. Radar clocked the driver at 74 m.p.h. in the 55 m.p.h. urban interstate speed zone. The ongoing war of wills and wits between speeders and the traffic-safety and enforcement establishment has moved to a new battlefield.

The conflict between those charged with maintaining safety on the nation's highways and drivers who regularly exceed speed limits is fought on two fronts: the technological and the psychological. The combination of technological advances in enforcement with an active public relations campaign seems to offer the best hope of winning on both fronts for traffic-safety professionals.

The psychological aspect of the conflict may best be described by looking at the problem from the point of view of the chronic speeder and from the point of view of the traffic-safety and enforcement professionals. Hekki Summala, a psychologist interested in driving behavior, calls the attitude of the chronic speeder the "skill model" of behavior. She described it in an article in *Human Behavior and Traffic Safety*, edited by Leonard Evans and Richard Schwing:

"The skill model of driver behavior implied that the safety of a driver is mainly determined by the level of his skills in relation to the situational demands on these skills. . .such theories provide the basis for claims for freedom in traffic: as we are skillful drivers and we have not been involved in accidents, we must have freedom on the roads. Accordingly, we need neither speed limits nor safety belts. Only those less skillful and more accident prone should be screened out of traffic or be re-educated."

Behavior Model

This behavior model, widely supported among traffic-safety professionals in the 1960s and early 1970s, held that driver education was the key to most traffic-safety problems caused by high speed. In fact, the National Highway Traffic Safety Administration introduced a concept of a "Master's Drivers License."

It would be available to those passing a special, more difficult driving test which included emergency maneuvering and crash-avoidance.

It is the attitude found behind the arguments of most organized advocates of higher speed limits. The Citizens for Rational Traffic Laws, Inc., called a "professional speeders' lobby" by some police officials, is perhaps the foremost public promoter of higher speed limits. A sampling of letters and articles in their newsletter demonstrates a predisposition to the "skill model":

- ". . .there has only been one serious design flaw ever proven in automobiles. . .and that's the loose nut behind the steering wheel."
- "When American drivers come home [from Germany], we gripe about the United States' lowest-common-denominator highway system, where roads are under-maintained and speed limits are kept low to accommodate untrained drivers."

Speed detection technology has created a mini arms race

Motivational Model

The "motivational model" proposes a simple motivational loop, according to Summala. On the one side of the loop you have "excitory kinds of motives which push drivers toward faster and more hazardous driving." On the other side of the loop, the inhibitory system is based on avoiding risk. Ordinarily, these drivers tend to avoid risk experiences. A problem results when the inhibitory system, which is based on experienced risk, doesn't work well enough to balance the "excitory motives." Better engineering of both cars and roadways, familiarity with routes and comfortable trip-lengths could all add to what some would call a mistaken sense of well-being at high speeds.

When the natural inhibitions and risk-avoidance instincts don't work, safety experts add another risk to the inhibitory side of the equation: the risk of being given a ticket for speeding. It is at this juncture technology begins to play an important role. Radar and its latest offspring help increase the speeder's risk of arrest.

The use of radar to detect and arrest speeders dates back to the early 1950s and it was during those pioneering days that the court battles over radar evidence were fought and won. John E. Sheehy, in his book, *Modern Traffic Law*, describes the four major conditions radar had to meet in order to be accepted in a court of law:

1. Is it a trustworthy device?
2. Was it functioning properly at the time?
3. Were the operators technically qualified?
4. Does the testimony relative to the radar findings meet the rules of evidence? (This generally means that the arresting officer has the offender in sight at the time of the violation.)

New devices would still have to meet these conditions, but most of the new generation devices used to track speed are viewed as improvements on the basic radar device. After all, if a ticket could be issued based on the use of the Electro-Matic Radar Speed Meter in 1955, who is going to quibble with the findings of a high-tech laser in 1990?

Mini Arms Race

Of course, as soon as the police introduce a detector, they create a market for a detector a driver can use to detect the police detector. What has been created is a mini arms race, where every advance in technology adopted for law enforcement is answered within a year by the $300 million-a-year radar detection industry.

One new development which threatens to break the cycle of measure and countermeasure is the laser speed detector. The laser detectors send an invisible beam of light at the target car with more precision than the broader radar beam so that it can pick out a single car up to a third of a mile away. Motorists' radar detectors would not give any warning. The laser units will cost more than three times as much as the conventional radar units, but their use will also make any detectors built to defeat them expensive as well.

Laser "detectors" would actually have to be optical jammers which would return signals showing lower speeds. According to David Williams,

president of International Measurement and Control Company, developers of the laser unit, jamming would be a very expensive proposition. "You basically have to put a laser diode in the instrument and several receivers on the front and back of the car. Radar detectors sell for $100 to $400, but this kind of instrument would cost significantly more. I'd guess it would run at least $1,500."

Photo Radar

Another new device is not based on new technology, but a combination of conventional radar and large camera with a telephoto lens. It is mounted in the back of a small truck or station wagon that is then parked in an area where speeding has been a problem. Once in position, the photo radar will take a picture of any vehicle that exceeds the speed set by the technician in charge. It might be set to photograph any vehicle exceeding 37 m.p.h. in a 30 m.p.h. zone, for example. The license number, driver, location, date and time are all recorded when the radar triggers the camera. If the evidence is clear (this generally means not only a clear license plate number, but also a clear picture of the driver), then the vehicle owner is sent a ticket. About 70 percent of the photos taken result in evidence clear enough for a citation.

If images of the unrelenting tyranny of Big Brother are evoked in complaints against the use of radar alone, one can image the outcry as photo radar is considered for use by law enforcement agencies. The key to the legal challenge rests on the assumption that the speeding driver is the owner of the vehicle, since the citation is issued to the car owner.

Presumed Guilty

This assumption has been challenged by groups as disparate as the Radio Association Defending Airwave Rights (RADAR) and the American Civil Liberties Union (ACLU). The legality of presuming the owner was the driver at the time of the violation "turns the legal system upside down," according to Janice Lee, president of RADAR, "forcing the vehicle's owner to prove his or her innocence rather than requiring the state to prove the driver guilty." The ACLU challenged the concept in Arizona, where the system is in operation in Paradise Valley. In all cases the courts found the system did not violate the rights of drivers, and the

Penalty box: Traffic court in a large city is always well attended.

Even the docile English speed if posted limit isn't reasonable.

Arizona Supreme Court refused to accept jurisdiction in the one ACLU appeal which reached that level, in essence upholding the lower court's ruling.

Once the legality of the procedure has been established, actual court challenges to the tickets themselves have been few. Pasadena, Calif., is one of the two U.S. cities currently using photo radar. Sgt. Ron Warner reports that during the past year and a half the city has issued almost 15,000 tickets for speeding based on photo radar evidence and only 283 have been challenged in court. "That's nothing," Warner said. "We probably have more challenges for hand-held radar."

Real Purpose

The technological one-upmanship that goes on between law enforcement officials and those looking for an "edge" to fight detection may sometimes cloud the real purpose of setting and enforcing speed limits: the prevention of accidents. The best approach to the goal seems to be a combination of rational speed limits and increasing the perception of risk of apprehension in order to balance the "motivational loop" which governs the behavior of drivers so that the actual speed limit is obeyed.

A study prepared for the AAA Foundation for Traffic Safety, "Speed Variance and Its Influence on Accidents" (July, 1988), reveals that higher speeds do not necessarily result in higher accident rates but that accident rates increase with speed variance for all types of highways.

Among other things the study

Publicity a cheap way to increase effectiveness of costly new lasers.

found that speed variance tends to be at a minimum — the safest condition — when the difference between the posted speed and the "design speed" of the highway was kept to between five and ten miles per hour. The design speed is defined as "the maximum safe speed that can be maintained over a specified section of highway when conditions are favorable." Design speed depends on the type of highway, the topography, and the land use adjacent to the highway.

Speed Variance

When speed limits are set without proper consideration of the acutal design speed of the highway, speed variance increases as more and more dirvers ignore the posted speed limits. Most planners use the "85th percentile" guide for setting speed limits. David K. Witherford described it this way in his 1970 book, *Speed Enforcement Policies and Practices*: "The 85th percentile speed (the speed at which or less than which 85 percent of the vehicles are traveling) is the most desirably approximated speed limit. There is almost a sheer drop below this percentage which would cause a large number of drivers to be violators."

Even the notoriously law-abiding English are apt to become a nation of speeders if the limits are not rationally determined. John Adams, in an article in *Human Behavior and Traffic Safety*, says: "It appears likely that legislation governing behavior is only likely to work where it ratifies well-established public opinion." An example from England suggests that "where legislation runs ahead of public opinion, it is effectively nullified by non-observance and non-enforcement."

Impractical Enforcement

A particular stretch of four-lane, divided highway was posted for 50 m.p.h., which drivers and police routinely ignored. The limit was raised to 60 m.p.h. and the Secretary of State for Transport justified the decision as follows:

"Speed limits needed to be realistic; if not, the majority of drivers tended to break them and this made enforcement impractical. It brought the law into disrepute."

It is when the speed limits are reduced based on other subjective factors, whether they be political, economic or emotional, that speed variance will increase, as will the potential for accidents.

Speaking of the findings contained in the AAA study, Sam Yaksich, Jr., executive director of the AAA Foundation, said, "It is time to take emotionalism out of speed regulation discussions and begin again to rely on engineering and professional expertise in speed-control program implementation."

If the speed limits are rationally set, the great majority of drivers will comply. Then the problem becomes increasing the risk of apprehension of those who don't.

Public Relations

But as David Shinar and James McKnight point out in their article in *Human Behavior and Traffic Safety*, public relations might be just as important as the number of gadgets with which we arm our police.

"The major determinant in compliance behavior is not necessarily what the police do, but how it is perceived. The effectiveness of enforcement in obtaining compliance depends greatly on each driver's risk of apprehension. All other things being equal, the greater the driver's perceived risk, the more likely is that driver to comply with traffic law."

Cost may give cops with lasers edge over motorists.

Every advance in technology, then, ought to be accompanied by a public relations effort by traffic-safety professionals aimed at making motorists aware of the greater risk of apprehension if they do exceed the speed limit. It would be a relatively inexpensive way to increase the effectiveness of the new equipment law enforcement agencies are acquiring.

The answer to the problem of speeding on the highway is to keep in mind the end result desired: reduced speed variance leading to fewer accidents. The combination of rational speed limits based on the actual design speeds of roads, advances in technology to detect speeders, and an aggressive public relations program to increase the perception of risk of apprehension is required in any program designed to make highways safer.

EVENTS

Bikes Abroad

MAY

Advanced Transportation Management Seminar for Executives — May 7-18, Evanston, Ill. (Northwestern University) — Transportation Center at Northwestern University, 1936 Sheridan Road, Evanston, IL 60208-4040. (708) 491-3225.

Velo Secur '90 International Cycling Safety Conference and Cycling Safety Fair — May 2-4, Salzburg, Austria — ARGUS-Fahrradburo Vienna, 1040 Wien, Frankenbergg.11.0222/65 84 35 od. 50509 07.

Information Systems for Highway Safety: 16th International Forum on Traffic Records Systems — July 16-19, Bal Harbour, Fla. — National Safety Council, 444 N. Michigan Ave., Chicago, IL 60611. (312) 527-4800, extension 8405.

Hazardous Materials Transportation Training — May 8-9, Kansas City, Mo.; May 15-16, Memphis, Tenn. — National Safety Council, 444 N. Michigan Ave., Chicago, IL 60611. (312) 527-4800, extension 8407.

'Funny' Drunks on the Rocks

Public attitude turns serious on drunken driving

BY MAURICE J. HANNIGAN

Maurice J. Hannigan is commissioner of the California Highway Patrol.

WE USED TO THINK drunks were funny. Remember how people loved Dudley Moore in *Arthur?* We have stopped laughing. *Arthur 2 On the Rocks*, five years after *Arthur*, was a disaster.

What happened?

More than anything else, Californians— along with the rest of the country — perceived a fundamental truth: Drunks are not funny; they are substance abusers. They cost this nation millions of dollars a year in absenteeism and poor on-the-job performance. They cause incalculable damage in terms of child and spousal abuse. And they are responsible for half of the fatal traffic accidents on this country's roads and highways.

That makes them criminals.

The drinking driver did not fare well in the California legislature last year. In the course of the 1989 session that representative body enacted the following:

- An amendment of the DUI (driving under the influence) vehicle code sections that lowers the blood alcohol concentration (BAC) level for DUI from .10 to .08.
- A statute that establishes an "administrative per se" program empowering peace officers to confiscate the driver's license of anyone arrested for drunk driving. Unless the Department of Motor Vehicles stays the suspension, the violator's driving privilege will be suspended for four months and reinstated only after the violator pays a re-issue fee of up to $100.
- A revision of the vehicle code that lowers the BAC limit for DUI for commercial drivers from .10 to .04. It also requires any operator of a commercial vehicle with a BAC level at or above .01 to be placed out of service for 24 hours and authorizes the Department of Motor Vehicles to suspend or revoke the commercial license of any commercial driver who is convicted of DUI or who refuses to take a DUI chemical test.
- A provision that allows the courts to sell the vehicle of any person charged with three or more misdemeanor DUI violations or with a felony DUI violation within seven years of a prior DUI conviction.
- A sentence-enhancing provision that directs courts to add from 48 hours to 90 days of jail time — depending on the number of prior DUI convictions — to the sentence of anyone convicted of driving under the influence with a boy or girl 13 or younger in the vehicle.

Latest trend gains in California: .08 BAC limit.

(The revisions pertaining to commercial drivers do not go into effect until 1992; the other four become effective in 1990.)

No Coincidence

It is no coincidence that this cluster of anti-DUI legislation came to pass in 1989. In tightening the screws on drunk drivers, the California legislature is only acting out the will of the people. And that will has shifted.

Between Jan. 1, 1989, and Dec. 31, 1988, 40,385 people in California died in traffic accidents; 20,722 — 50.5 percent — of those deaths occurred because one or more of the drivers had been drinking. During that same period California traffic officers ar-

rested more than 2.75 million people for driving under the influence. That is almost *one thousand people a day* over an eight-year period.

Getting drunk drivers off the road has been the number one priority of the California Highway Patrol from almost the time of its inception 60 years ago. And informing the driving public of the hazards of drinking and driving has long been the number one priority of the department's Office of Public Affairs.

The consequence of this combination of aggressive enforcement and energetic public-awareness campaigning has been a high level of recognition in California of DUI as a serious problem — a recognition that has been greatly heightened by the creation and activities of Mothers Against Drunk Driving (formed by a Sacramento woman whose child was killed by a drunk driver), Students Against Drunk Driving, the creation and development by the highway patrol of the Sober Graduation program and anti-DUI activities by other groups.

Highest Potential

I believe that all the anti-DUI laws passed by the California legislature during this past legislature session are important. But to my mind the one with the greatest potential for diminishing the incidence of drunk driving and thus reducing the number of fatal traffic accidents in this state is the .08 law.

California is not the first state to enact a .08 law. Oregon, Utah and Maine also have a .08 threshold for drunk driving.

At the time the .08 law was enacted here, many people dismissed it as unnecessary and/or unenforceable. These people missed the point.

I compare this law to a boxing manager watching his boxer in a prizefight. As soon as the manager sees signs his charge is starting to tire or fade, he throws in the towel — provided he is the sort who wants to keep his fighter healthy — before there is any serious injury.

In passing the .08 law, the legislature acted very much like a concerned boxing manager. Their approval of this measure is a message to the public: If they want to drive after drinking, they have to come out of the ring before the end of two rounds, because after two rounds — or in the case of alcohol, two beers, highballs or glasses of wine — it is too late. They are not in a condition that permits them to drive a vehicle safely.

Two drinks in one hour will put a 150-pound person in the vicinity of the new DUI threshold in California. More than two will almost certainly put him or her over the line and into the area of being at risk.

Research Conclusions

Medical research has established that a person with a .08 BAC is impaired — too drunk to drive. Driving a vehicle safely is, of course, dependent on more than simply the amount of alcohol in the system. Nonetheless, alcohol in the system can be a critical impairment.

According to a drink chart guide developed by the California Department of Motor Vehicles, two drinks consumed in one hour will place anyone between 90 and 150 pounds in the .07 to .09 BAC category. A person weighing between 150 and 190 pounds will be at the .06 level after two drinks in one hour, and anyone over 190 will be at the .05 level. California's new law makes .05 to .07 "likely DUI," and .08 and beyond "definitely DUI." It should be noted that weight is not the only element that determines how much alcohol actually enters the blood. The amount of food in the person's system, his or her metabolism and how tired the person is all contribute as well.

Drunk driving becoming outré

According to the American College of Emergency Physicians, "Epidemiologic and experimental data persuasively establish that the risk of a driver being involved in an injury or fatal crash increases as the alcohol concentration increases. The measurable impairment to operate a motor vehicle begins in most drivers at or below .05 percent, and *all drivers are impaired at a BAC of .08*" (ACEP Position Statement issued June 6, 1988, emphasis added).

The most common problem for the boxing manager I referred to earlier is that his fighter does not want to stop the bout at the same time his manager does, because he does not think — recognize — he is in danger.

This is also the problem law enforcement must confront in persuading California motorists of the validity of the .08 standard. Most people at or slightly above .08 do not feel under the influence and simply do not understand that all the primary faculties that combine to maneuver a vehicle safely on the road — judgment, perceptions and reflexes — are operating under an inhibiting cloud that makes it impossible for them to control their vehicles or respond to a hazard or sudden threat the way they would when sober.

This ignorance is a precondition to highway tragedy. It is the ignorance that the California Highway Patrol and other law enforcement and traffic safety organizations must wipe out for the .08 law to be fully effective.

The situation in California today is very much like the nationwide situation in the early 1960s when the U.S. surgeon general declared smoking an across-the-board health hazard. Almost overnight, smoking, an activity that up to that point had been quietly, generally, almost passively acknowledged as probably not very good for you, was publicly and officially proclaimed to be bad for you.

Now the California legislature has passed a law establishing, in effect, that people who attempt to drive after consuming even small amounts of alcohol are endangering themselves and others, and will be arrested and prosecuted if they do it. And it is the task of the California Highway Patrol and other public and public-minded agencies to educate the state's 20 million drivers — the majority of them with a relatively low level of awareness concerning the impairment potential of low-level alcohol consumption — to the behavioral implications of the new law.

One Drink Less

The campaign's initial objective must be to ensure the public realizes the law has been changed from .10 to .08. The next objective will be to state the behavioral implications of the new standard in terms the public can understand and use in guiding their own activities. The CHP's public awareness campaign is based on establishing that most people will reach a state of intoxication where it is illegal for them to drive one drink sooner than when the legal threshold was set at .10.

The ultimate goal of any campaign tailored to increasing awareness of this new law must be to instill in the public an appreciation that the legis-

lature lowered the legal threshold to this new level because it is a metabolic impossibility for the human body to avoid serious impairment with that much alcohol in the system. In addition, for someone attempting to maneuver 3,000 pounds of steel on today's streets and highways, that impairment is life-threatening to others.

The campaign to sensitize the motoring public to the point where they can resist the temptation to get behind the wheel after consuming relatively low levels of alcohol will doubtless be a long and difficult. Twenty-five years after the surgeon general's pronouncement on the hazards of smoking, the campaign to sensitize people to the hazards of smoking is still far from over.

One drink less expected to save many lives.

This is not to say there has not been important progress. Smoking in California, at least in public, has been transformed to the point where it is deemed antisocial. As highway commissioner, I hope the fate of the practice of drinking and driving in California would become no less objectionable.

WASHINGTON WORLD

The 21st Century Begins to Roll

Feds will let the states pay the toll

BY JIM CASTELLI

PRESIDENT Bush and Transportation Secretary Samuel Skinner have announced a comprehensive national transportation policy designed, in the president's words, to "begin to create the transportation system of the 21st Century."

Initial reaction to the report — "Moving America: New Directions, New Opportunities" — has been mixed. While there is broad support for a concerted effort to rebuild the nation's transportation infrastructure, governors, mayors and members of Congress have complained that the policy shifts costs away from the federal government and to the states, localities and transportation users.

Skinners said the policy is built on six themes:

- Maintaining and expanding the transportation system.
- Providing "a sound financial base" for transportation.
- Maintaining a competitive transportation industry.
- Ensuring public safety.
- Protecting the environment.
- "Advancing transportation technology into the 21st century."

The policy would focus federal highway spending on major arteries and impose new responsibilities on states and local governments for building and maintaining local roads. It urges states and localities to hike gasoline taxes and rely more on revenue generated through tolls, transportation taxes and other user fees. The average state gasoline tax is now 16 cents a gallon, double a decade ago. The federal gasoline tax has stood at nine cents a gallon since 1982.

Skinner developed the policy statement over the past year. It is the first such plan in more than a decade. Skinner has estimated that the United States must spend $1 trillion to $3 trillion on transportation during the next 20 years, at least three times as much as in the past. This year the federal government is expected to spend about $18 billion on transportation, $14 billion of it on highways.

Blueprint

The new policy offers no specifics on money and instead presents a general blueprint. The details will come in follow-up legislation, including upcoming re-authorization bills for highways, highway safety and mass transit.

Here are highlights of the new transportation policy:

- Safety: Increase the number of federal aviation, railroad and motor carrier safety inspectors; improve safety standards.
- Highways: Concentrate federal spending on major national arteries; increase state and local share of funding federal highway projects. (The government now picks up about 80 percent of the tab, up to 90 percent on some projects.)
- Tolls and taxes: Urge states to use more road tolls and increase state gasoline taxes to fund road construction.
- Mass transit: Reduce federal assistance and increase the state and local share.
- Hazardous material: Strengthen the oversight of the transportation of hazardous material.
- Trucking: Further deregulate the industry; impose uniform reporting practices and procedures at state level.
- Research: Increase federal research and development funding by

70 percent over the next five years; this would include about $13 million for further development of a "smart car," equipped with sensors that alert drivers to traffic congestion and alternative routes.

Taxes Acceptable

Citing a 1989 survey by the American Association of State Highway and Transportation Officials, Skinner argues that motorists would accept a gas tax increase to pay for road construction and research. According to the survey, 50 percent of the public would vote for an increase of 16 cents per gallon in fuel taxes if the money were "used to support the right combination of expenditures."

According to an association spokeswoman, the "right combination" would involve having 4.9 cents of the increase used to improve roads, 2.9 cents for research, 2.3 cents to reduce traffic, 2.1 cents to reduce accidents, 1.9 cents on mass transit, 1 cent on pollution and 0.6 cent to reduce the federal deficit.

Skinner declared that congestion on land and in the air "will get better," but only at a price borne by users. "Thirty-three states have raised their user fees and put programs into place with federal support to rebuild the nation's infrastructure," he said. "We just have to do more."

The fact that 18 states boosted their gasoline taxes last year and a total of 33 have raised some transportation user fees shows that Americans are willing to pay for greater speed and safety, Skinner said.

Highway Fatalities Decline

The 1989 highway fatality rate was the lowest in U.S. history, according to the National Highway Traffic Safety Administration. There were 2.2 deaths per 100 million miles of travel, down from 2.3 the year before. The rate was 3.4 per 100 million miles in 1975 and 3.2 in 1981.

There were 45,500 traffic fatalities in 1989, down from 47,093 in 1988.

Transportation Secretary Skinner said, "The reduction in traffic deaths during the 1980s reflects our national resolve against drunk driving, increased safety belt use and a generally heightened awareness of highway safety."

Child Protection

NHTSA Administrator Jerry Curry says the 213 safety defect investigations opened in 1989 were the most in the agency's 20-year history. Curry said 6.8 million vehicles were recalled and 77 percent of those were influenced by NHTSA investigations.

Curry says NHTSA has started to "explore the potential benefits" of government registration of child safety seats. But he said the primary safety risk is that 40 percent of children who could be protected by car seats or safety belts are not, because "they're not restrained at all or because they're not properly restrained."

Curry said the agency has opened 19 investigations since 1981 that led to recalls affecting 1.3 million safety seats. "The principal question about these recalls is how effective they've been in securing the remedy of the seats," he said. "Of the six million seats subject to recall, only a small percentage have been remedied.

Curry testified at a hearing of the House transportation committee. The committee called the hearing after the Center for Auto Safety charged in December that the government was not enforcing its child car seat compliance and recall program and that half of the child restraints in use were defective.

Clarence Ditlow, president of the CAS, said child seat manufacturers do not have to meet notification or record retention requirements. "Owners of child seats do not benefit from the automatic record-keeping function vehicle makers must maintain. If a child seat owner does manage to find out about a recall campaign, it is only through persistence and luck."

New NTSB Chief

The Senate has confirmed James Kolstead, former vice president for public relations for Frontier Airlines, as chairman of the National Transportation Safety Board. Kolstead has been acting chairman of the National Transportation Safety Board since Aug. 14, 1988, when Jim Burnett failed to win Senate approval for a fourth two-year term as chairman.

The agency has been struggling with a shrinking investigative staff and a tight budget. Its job is to learn the causes of the nation's worst accidents in the air, sea and on land. One board member, Joseph Tribbe Nall, was killed Nov. 28 in a plane crash in Caracas, Venezuela, where he had gone to give a speech.

The agency investigates 3,000 accidents each year. Its staff has been reduced from 400 to 324 over the past decade. The Bush administration has asked for a fiscal 1991 budget request of $30.9 million, a $3.7 million increase over the 1990 budget. This would fund 22 additional staff positions, primarily for investigations.

In one of his first appearances after his confirmation, Kolstead told the House Appropriations Committee transportation subcommittee that the board would place a greater emphasis on the "human factor" in accidents. "The real responsibility for safety occurs in the cockpit of the airplane and the cab of the truck and the bridge of the ship, not with some. . .agency," he said.

He said the NTSB has already "placed a greatly increased emphasis on the human factor" in the transportation accidents it investigates. Noting that "70 percent to 80 percent of all accidents are operationally induced," Kolstead said he plans to continue focusing on human factors, particularly in the area of drug and alcohol abuse.

In 1988 trucks were involved in 28 percent of all fatal accidents and 18.8 percent of all accidents, according to statistics compiled by the National Safety Council.

Other News

A General Accounting Office Report has found management deficiencies in the Department of Transportation program to test transportation workers for drug use. The GAO cited insufficient guidance to employers, failure to review employer drug testing plans and failure to monitor and ensure compliance.

The House Public Works and Transportation Committee will hold a year-long series of hearings on rebuilding the nation's infrastructure. The committee chairman, Rep. Glenn Anderson (D-CA), says "60 percent of our highways and 41 percent of our bridges are in need of work; traffic congestion has increased over 50 percent in the past 10 years."

The Treasury Department has issued final regulations ordering that warning labels on alcoholic beverages be "legible, conspicuous and prominent." The warnings have been required since last November, but public comment demanded that they be more visible. The new regulations will take effect next November.

Ignition interlock device tests motorist's breath for traces of alcohol.

Cars Can Reverse Drunk Drivers

Engine starts only for sober driver

RICH WILLIAMS was arrested last month for his third DUI offense, but he's still not ready to admit he may have a problem with alcohol. In his mind, the fact that he has a family and a good job somehow makes him immune to something as serious as alcoholism. Even after court-ordered installation of an ignition interlock in his car, he remains blinded by his denial. He looks at the device simply as a sanction, rather than a friend that can also help him overcome his drinking problem.

Every day, the interlock requires Rich to pass a breath test before he can start his car. Recently, one Saturday afternoon, he tried without success to start his car and head for a bar. The interlock had detected an unacceptable blood alcohol level - a reminder of the drinking he'd done at lunch. The car wasn't listening to any more of Rich's excuses.

This pattern of denial is not unusual for someone recently sentenced to have an ignition interlock installed in the car as punishment for a drunk driving offense. Once installed, the device prevents drivers from starting their vehicles while under the influence, and eventually teaches them about their patterns of drinking and driving.

Rich was sentenced to use an interlock system that connects a breath analyzer to a vehicle's electrical system. Once installed, the driver must blow into the system, pass a BAC (blood alcohol concentration) test at a pre-set level, and use a breath code for the intended driver only, in order for the vehicle to start.

Staggering Problem

Each year in America law enforcement officials must grapple with staggering drunk driving statistics. It is estimated that over 50 percent of traffic fatalities are related to the use of alcohol. In addition, the National Highway Traffic Safety Administration estimates that two out of five people in the nation will be involved in an alcohol-related traffic accident at some time in their lives.

The car knows the way not to go home

These statistics frustrate officials responsible for public safety, who work to keep drunk drivers off the roads. Enforcement officials know the reality behind the statistics: the families and loved ones of those injured or killed.

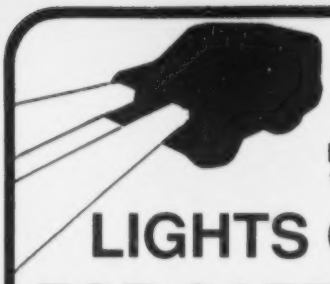
This issue has captured national media attention, and state legislatures have begun to respond. In 1989, more than 20 states introduced legislation to permit, or require the use of interlocks by convicted drunk drivers.

Repeat Violators

One of the major factors contributing to the drunk driving problem is its chronic nature. The National Highway Traffic Safety Administration reports that DUI offenders usually have committed between 200 and 2,000 drunk driving violations before their first arrest. In general, most states give first-time offenders a license suspension of 30 to 90 days and a fine of 500 dollars or less.

Furthermore, many legislators are recognizing what most judges and enforcement officials already know; that license suspensions alone do not keep drunk drivers off the road. According to Mothers Against Drunk Driving (MADD), 60 to 80 percent of persons with suspended licenses continue to drive. Clearly, it seems that courts nationwide need to be made aware of more effective deterrents to drunk driving.

In several jurisdictions throughout the country, law enforcement and probation officials have witnessed the effectiveness of ignition interlock systems. Ohio, Pennsylvania and California have all recently conducted



HOW'S YOUR

LIGHTS ON FOR SAFETY

PROGRAM?

Get guaranteed compliance!

Install **LITE-MATE #480**

Automatically turns low beams on when vehicle is used, and off again when use is terminated.

Simple to install.

Fuse protected 30 amp module.

$5.95 ea.

Prevent flat batteries from manual programs!

Install **LITE-MINDER #400**

Tone sounds if headlamps or parking lamps are left on.

Installs in seconds.
NO TOOLS!
NO WIRING!
Also installable as a headlamps turn-on reminder

$2.20 ea.

Our customers include telephone companies nationwide, city and state agencies, General Motors and the U.S. Government.

SPECIAL OFFER: . . . Order 100 or more LITE-MATEs and receive one dozen LITE-MINDERs **FREE!!**

WANT INFO FAST?

Call us and provide FAX No.

(408) 779-1587

THE LITE-MINDER COMPANY
16840 JOLEEN D2
MORGAN HILL, CA 95037

A supplier to General Motors in the U.S. and Canada
DISTRIBUTOR ENQUIRIES WELCOME

studies of two years or longer to determine the interlock's effect on re-arrest rates for drunk drivers. In each case, the results illustrated that the interlock deters DUI re-arrest.

Five-Year Study

Researchers from the Institute of Behavioral Science at the Univeristy of Colorado recently completed a 30-month status report on the Hamilton County Drinking and Driving Study, a five-year research program in Hamilton County, Ohio. The study began in 1987 and involved 358 participants who have been convicted of DUI.

Half of these participants represented the experimental group, with ignition interlocks installed in their automobiles. The other 179 comprised the control group and were sentenced to the more traditional sanction of license suspension.

The two groups were paired and matched according to similar personal characteristics, arrest histories

DUI offenders using interlock less likely to repeat offense.

and other factors known to put persons at risk for DUI. These risk factors included problem drinker classification; number of prior alcohol-drug-related arrests (non-DUI); and the number of prior DUI arrests. It was determined that the experimental group members had more prior DUI arrests, putting them at a slightly greater risk for re-arrest.

After 30 months, the DUI recidivism rate (re-arrest for drunk driving) for the experimental group on interlock was only 3.4 percent. Individuals on interlock were three times less likely to be re-arrested for drunk driving than those in the control group under license suspension who had a recidivism rate of 9.8 percent.

Recidivism Reduced

Overall, this represents a 65 percent decrease in the probability of DUI recidivism. The University of Colorado report also showed that at every point in the course of this study, interlock users had a lower re-arrest rate than those sentenced to license suspension.

The national interest in the Hamilton County study gave rise to a similar study in Cumberland County, Pa., and produced similar results.

In Cumberland County, officials of the Accelerated Rehabilitation Disposition (A.R.D.) Program, a probationary program for first-time DUI offenders that incorporates the use of ignition interlocks, recently concluded a two-year study of their effectiveness.

The joint A.R.D./Interlock pilot program, institute in October, 1987, for DUI offenders with a BAC of .10 or more, involved 291 participants using ignition interlock devices as a requirement for license reinstatement. The results of the study revealed the nation's lowest two-year recidivism rate: 1.37 percent.

Paul Meuron, probation officer and head of Cumberland County's A.R.D./Interlock Program, said: "Most people arrested for drunk driving have a serious drinking problem, and along with that goes denial. They're lying to themselves, their family, their DUI instructor and probation officer, but they can't lie to the interlock machine."

Preliminary results of a third pilot program recently conducted in three counties in California echo the findings in Ohio and Pennsylvania. When released this spring, the study should provide valuable additional support for the use of the devices.

States Act

Since 1986, when California became the first state to pass legislation, 16 states have enacted laws allowing the use of ignition interlock systems with DUI offenders. Twelve states are already using the devices with offenders: Washington, Oregon, California, Texas, Nebraska, Iowa, Michigan, Indiana, Ohio, Pennsylvania, New York, and Maryland. Over 450

Drunks can lie to themselves but not to machine

judges throughout the country are successfully using the devices as part of sentencing with drunk drivers.

Experience in the field has shown law-enforcement officials and substances-abuse professionals that the interlock provides deterrence in a number of ways: First, the interlock design physically prevents an intoxicated driver from starting the car by shutting down the electrical system. Second, over time it can become an important behavior modification tool that discourages the driver from drinking at all.

Alan D. Gagnon, a certified addiction counselor and former police officer, examined the possibilities of using interlock devices along with rehabilitative treatment to deter DUI arrest among high-risk drivers. Formerly head of the Residential Alcohol Treatment Program at Rutland Heights Hospital, Rutland, Mass., he is presently the director of addictive disease services at Salem Hospital in Massachusetts.

Studies of offenders in the Rutland program indicated that the recidivism rates of second-time offenders completing traditional substance-abuse treatment is 10 percent, compared to 20 percent recidivism for similar offenders given a 29-day jail sentence. Gagnon believes the interlock could reduce recidivism rates even further, because it can help change behavior, and help offenders understand the dangers of drinking and driving.

"The ignition interlock system can be an effective device in addressing immediate public safety, and over the period of use can help offenders understand and learn their limitations with respect to alcohol use while driving," said Gagnon.

'But for that device, I'd have drunk all night.'

Drinkers Helped

The vast majority of offenders sentenced to interlocks come away with the feeling that they are helping to save more than just their own lives.

Jerry Slape of Auburn, Wash., a former drunk driver sentenced to the interlock, commented on his experience: "I've had the interlock installed in my car for almost two years, and although I resisted the very idea of it at the beginning, I've come to truly appreciate having it. It has been an excellent tool in dealing with my drinking problem."

"Once, early in the program, it kept me from drinking when I was in a bar. I ordered a couple of drinks, and just before I took them I thought of the interlock in my car outside. I also thought about how embarassed I'd be to call someone to come drive me home. So I left without drinking. Had it not been for that device, I would have drunk all night and tried to drive home. It helped me not be another potential 'killer by vehicle.' "

Update

KIP FULLER, a Denver inventor who helped develop the Guardian Interlock, saw the need for it after an experience of his own. When he was 19, he himself was convicted of driving under the influence.

It wasn't something he intended to do. In an interview with the Associated Press, he said he asked himself why someone hadn't thought of a device that would prevent drunk driving before the car left the curb.

"The 'why' part of that question got me thinking about a method of prevention. It sure would have helped me back then," he said.

Ironically, his latest invention works the other side of the traffic enforcement street. Like the Stealth bomber, it resists radar detection at long range. Carbon fibers in a "bra" that fits over the front end of a car absorb radar beams. By the time police radar can lock in, the driver has a chance to slow down.

Fuller, now 33, has said he tries to invent products that help government do its job. His justification for the anti-radar device is that "it helps keep them on their toes."

Radar, he said, can give misleading readings at long distance because the beam from a radar gun spreads. Forcing the police to wait for a shorter range shot makes their readings more accurate and discourages using the radar gun to generate revenue.

Fuller doesn't manufacture the Guardian Interlock. Based also on the work of Don Collier, now board chairman, it's made by Guardian Technologies, Inc., of Cincinnati, a subsidiary of Cincinnati Microwave.

Isn't It Rude To Drive Like THAT?

Survey examines changing public attitudes

ENFORCEMENT can do only so much. What really changes public behavior is social pressure. Several articles in this issue report on new trends in public attitudes. We'd like to know whether you are seeing similar developments in your community.

TRAFFIC SAFETY will tally your answers and pass along to the traffic safety community what you're telling us.

Comments Invited

Make your answers as extensive as you like. You can either check off the answers to the accompanying questions and stop, or add your comments as well.

You can just tear out this page and send it in. Or, if you have to share your copy of Traffic Safety with others, you may want to photocopy the page. Then you can write your comments on the back.

Mail your responses to:

TRAFFIC SAFETY Survey
National Safety Council
444 N. Michigan Ave.
Chicago, IL 60611

	Yes	No	Maybe
1. Commissioner Hannigan of the California Highway Patrol says Californians have become distinctly less tolerant of driving under the influence of alcohol. Would you say this is also true where you live?			
2. In many places, alcohol servers are being trained to cut off patrons before they become drunken menaces to themselves and everyone else. In your community are owners and managers cooperating?			
3. Is alcohol-server training having a noticeable effect?			
4. Are police more likely now to consider their own driving behavior as an example to the public?			

The Polite Finger

COMMUNICATION BROCHURE

"Seven Signals for Safer Driving," a brochure illustrating basic hand signals for motorists to communicate with each other, is available for distribution by businesses, public agencies and other organizations.

The brochure outlines a hand communication system that uses common signals and lights on the vehicle to convey seven messages to other motorists: I'm sorry; slow down, danger ahead; please yield left lane; pull over for problem; check your lights; need assistance; and thank you, I understand.

The signals attempt to better driver relations, identify vehicle or road problems early, provide immediate aid to stranded motorists and improve lane courtesy. — **Citizens for Rational Traffic Laws Inc.,** 6678 Pertzborn Road, Dane, WI 53529.

TRUCK RESTRAINT

The automated Truck Stop STAR 3 truck restraint for loading docks is activated by a hydraulic system using pushbuttons. It has a restraining force of 30,000 pounds and an operating range from 11 inches to 30 inches above the drive.

Dock workers raise the unit's restraining arm with a switch in the control panel. When the arm contacts the truck's ICC bar, the outside light changes to red, warning the driver not to pull away. The control panel light display inside also turns red for the dockworker. When loading or unloading is complete, controls are activated again to release the unit, and lights change back to green. — **Kelley Company** Inc., 6720 N. Teutonia Ave., P.O. Box 09993, Milwaukee, WI 53209-0993.

TRUCK PUBLICATIONS

"Safety Publications and Services" catalog for motor carriers contains materials to help carriers understand and comply with federal regulations requiring substance abuse awareness and drug testing programs.

"Aware Because We Care" is a comprehensive drug and alcohol abuse awareness program tailored to the trucking industry. The employee training program covers the warning signs of alcohol and drug abuse, the effects of substance abuse on job performance and the legal and financial consequences of abuse.

The program has two 12-minute videos, a leader's guide, samples of four educational booklets, eight employee payroll stuffers reinforcing program messages and three posters promoting awareness of the dangers of substance abuse.

Compliance forms, "US DOT Drug Testing Regulations — Overview for Motor Carriers," a video on "Recognizing Substance Abuse" and other publications are also available — **American Trucking Association,** 2200 Mill Road, Alexandria, VA 22314-4677.

BELT ADJUSTER

LooPo is a safety belt adjustment device that reduces discomfort by allowing motorists to create slack in their belts. The 2¾-inch-by-1¼-inch device slides onto the safety belt. A control lever allows the belt to be adjusted for personal comfort after it is buckled. Upon impact, it snaps to its tightest position to secure the body. — **AIB Financial Group Inc., LooPo Division,** 104 Ponce De Leon Blvd., Miami, FL 33135.

BARRIER MACHINE

This self-propelled movable barrier machine can be used in construction zones and in sections with reversible lanes. The machine picks up a connected string of three-foot concrete or water-filled barrier sections and shifts them right or left to add or subtract a lane. A lane can be changed at a rate of one mile every 15 minutes. — **Energy Absorption Systems Inc.,** One E. Wacker Drive, Chicago, IL 60601

TRAINING SIMULATOR

The L-300 series driver training simulation system uses microprocessors in each trainee cab for immediate feedback on performance during the lesson and more realism.

A light-pen or touch-screen control panel replaces indicator lamps and switches on the instructor's console. The console's computer interprets information about each driver's progress. A high-resolution color monitor has multiple displays that allow an accurate interpretation of system cues. An optional printer provides a summary of all lesson data and a record in real time of all programmed and manual performance checks.

A wide-angle, 16mm film and sound system provides the windshield-view of traffic. An optional yaw motion base provides left-to-right movement of the simulator cab from steering. — **Doron Precision Systems Inc.,** P.O. Box 400, Binghamton, NY 13902.

GOGGLE PLATES

Filtrex Plus are hardcoated polycarbonate filter plates and lenses for welding helmets and goggles. They are designed to have increased impact resistance, exceeding the 1989 ANSI Z87.1 Standard for high-speed and high-mass impact. The filter plates can be used alone or with Duogard clear safety or cover plates. — **Gateway Safety Products Co.,** 4722 Spring Road, Cleveland, OH 44131

LIBRARY

New Breathalyzer

Please Note: *Library is prepared by the National Safety Council Library — Robert Marecek, manager. The National Safety Council Library is unable to supply any of the materials listed here. For your convenience, the names and addresses of the publishers are listed.*

Accidents

Fatal Accident Reporting System, 1988. December 1989. National Highway Traffic Safety Administration, 400 Seventh St. S.W., Washington, DC 20590. vpg.

Insurance Collision Report: Passenger Vehicles, Vans, Pickups, and Utility Vehicles. December 1989. Highway Loss Data Institute, 1005 North Glebe Road, Arlington, VA 22201. 58 pp.

Seiff, H. E., "Status Report on Large-Truck Safety." *Transportation Quarterly*, Box 2055, Westport, CT 06880-0055. Vol. 44, No. 1, January 1990, pp. 37-50.

"Worldwide Fatal Accidents in Commercial Jet, Turboprop Operations: 1989." *Aviation Week & Space Technology*, 1221 Ave. of the Americas, New York 10020. Vol. 132, No. 5, 29 January 1990, pp. 72-73.

Alcohol

Ward, R., Kahn, J., "CHP's New Tool: Alcohol Breathalyzer." *California Highway Patrolman*, Box 161209, Sacramento, CA 95816. Vol. 53, No. 12, December 1989, pp. 32-33.

Bridges

Tighe, M. R., "The Show Me State Shows Off Cathodic Protection." *Public Works*, 200 S. Broad St., Ridgewood, NJ 07451. Vol. 121, No. 1, January 1990, pp. 70-71.

Driver & Driving

Strah, T. M., "To Sleep, Perchance to Bank Some Credit." *Transport Topics*, 2200 Mill Rd., Alexandria, VA 22314. No. 2835, 4 December 1989, pp. 1, 8.

Zykan, D. M., "Tougher Licensing, Smaller Labor Pool." *Waste Age*, Ste. 1000, 1730 Rhode Island Ave., N. W., Washington, DC 20036. Vol. 20, No. 12, December 1989, pp. 105-106.

Regulations

Boske, L. B., "Analysis of Issues Leading to Texas' Adoption of Federal Motor Carrier Safety Regulations." *Transportation Quarterly*, Box 2055, Westport, CT 06880-0065. Vol. 44, No. 1, January 1990, pp. 51-71.

Restraint Systems

Kidd, J. S., "Air Restraint Bags: Not Just a Lot of Hot Air." *Fire Engineering*, 875 Third Ave., New York 10022. Vol. 142, No. 12, December 1989, pp. 50-52.

Fleming, A., "Riding the Air Bag Boom." *Automotive News 64th Year*, 965 E. Jeffereson, Detroit, MI 48207. No. 5317, 11 December 1989, pp. E2, E6.

Signs & Signals

Sparks, J. W., Cynecki, M. J., "Pedestrian Warning Flashers in an Urban Environment: Do They Help?" *ITE Journal*, 525 School St., N. W., Ste. 410, Washington, DC 20024. Vol. 60, No. 1, January 1990, pp. 32-36.

Burritt B. E., Buchanan, R. C., Kalivoda, E. I., "School Zone Flashers—Do They Really Slow Traffic?" *ITE Journal*, 525 School St., N. W., Ste. 410, Washington, DC 20024. Vol. 60, No. 1, January 1990, pp. 29-31.

Traffic Engineering

Traffic Congestion: Federal Efforts to Improve Mobility. December 1989. General Accounting Office, Washington, DC 20548. 90 pp.

Buritt, B. E., "Traffic Engineering - Myths and Realities." *Public Works*, 200 S. Broad St., Ridgewood, NJ 07451. Vol. 121, No. 1, January 1990, pp. 63-64, 94.

Transportation

Ott, J., "Analysis Shows Air Travel Grew Safer During 1980s." *Aviation Week & Space Technology*, 1221 Ave. of the Americas, New York 10020. Vol. 132, No. 4, 22 January 1990, pp.

90-91.

Irsfeld, G., Bremer, K., "Is Your Airport Prepared for Disaster?" *Airport Services*, 50 S. Ninth St., Minneapolis 55402. Vol. 30, No. 1, January 1990, pp. 38-41.

Winter Driving

Kenter, P., "Driving on Ice." *Living Safety*, 1765 St. Laurent Blvd., Ottawa, Ontario K1G 3V4, Canada. Vol. 7, No. 4, Winter 1989-1990, pp. 8-10.

Drugs

Marzuk, P. M., Tradiff, K., Leon, A. C., "Prevalence of Recent Cocaine Use Among Motor Vehicle Fatalities in New York City." *Journal of the American Medical Association*, 535 N. Dearborn St., Chicago 60610. Vol. 263, No. 2, 12 January 1990, pp. 250-256.

Equipment

The Ties That Bind, Super Automotive Service, 7300 N. Cicero Ave., Lincolnwood, IL 60646. Vol. 120, No. 6, December 1989, pp. 31-34.

Fuels

Ross, P. E., "Clean-Air Fuels for the '90s." *Popular Science*, 2 Park Ave., New York 10016. Vol. 236, No. 1, January 1990, pp. 47-51.

Highways

Moretti, F. R., *Highway Fact Book, 1990*. Highway Users Federation. 1990. Highway Users Federation, 1776 Massachusetts Ave., N. W., Washington, DC 20036. 26 pp.

Willis, D. K., "IVHS Technologies: Promising Palliatives or Popular Poppycock?" *Transportation Quarterly*, Box 2055, Westport, CT 06880-0055. Vol. 44, No. 1, January 1990, pp. 73-84.

Motor Vehicles

Insurance Special Report: Automobile Theft Losses by Size of Claim and in Selected States. December 1989. Highway Loss Data Institute, 1005 North Glebe Road, Arlington, VA 22201. 14 pp.

Insurance Special Report: The Effect of Vehicle Component Parts Marking on Theft Losses. December 1989. Highway Loss Data Institute, 1005 North Glebe Road, Arlington, VA 22201. 14 pp.

Motor Vehicles-Design

Hely, J. "Audi Runaway Problem: Responsibility v. Public Relations." *Trial*, 1050 31st St., N.W., Washington, DC 20007-4499. Vol. 25, No. 12, December 1989, pp. 86-91.

Motor Vehicles-Fires

Insurance Special Report: Noncrash Fire Losses, 1986-1988. December 1989. Highway Loss Data Institute, 1005 North Glebe Road, Arlington, VA 22201. 34 pp.

Pedestrians

Preston, B., "The Behaviour and Safety of Pedestrians at Pelican Crossings in Greater Manchester." *Traffic Engineering & Control*, 29 Newman St., London W1P 3PE, England. Vol. 30, No. 12, December 1989, pp. 596-599.

SHORTCUTS

Motorized Bombs Resisted

Diane K. Steed, former administrator of the National Highway Traffic Safety Administration, revives the issue of the proposed vapor recovery system for automobiles in a report to the American Coalition for Traffic Safety, Inc. (ACTS).

Gasoline vapors escape and pollute the air during refueling. Pumping 12 gallons of gasoline into a car's fuel tank can produce four ounces of vapor.

Onboard systems to collect the fumes involve installation of large charcoal canisters, larger fuel hoses and lines, a liquid-vapor separator and additional valves in cars.

Recovery systems installed on gas pumps — called stage II controls — capture the escaping vapors and return them to the underground storage tank until they can be disposed of safely.

The highly explosive nature of gasoline fumes increases the risk of automobile fires if the vapors should escape from the canister and collect anywhere along the system, the ACTS report said.

Other Possible Problems

A recent study conducted by Arthur D. Little, Inc., for the secretary of transportation found "potential safety risks associated with onboard systems." And one congressman referred to cars equipped with vapor recovery systems as "motorized bombs."

Besides the risk of fire or explosion, researchers found that onboard recovery systems created driving problems, such as stalling, that may tempt owners to tamper with the system. This would increase the potential for danger, according to the ACTS report.

Each year, vehicle collision fires cause some 1,900 deaths. Even a slight increase in the risk for fire could end up claiming more lives than the smaller number of pollution-related illnessess that the onboard system may prevent, the study said.

Stage II recovery systems have been in operation in gas pumps in California for 15 years. Washington D.C., New Jersey, St. Louis and Metropolitan New York have recently installed the systems. The Stage II systems can be installed in gas stations within a few years, while it would take about 15 years to equip all new cars with the onboard system, the report said.

Gas-pump systems appear to be simpler and less expensive to install and operate, and safer than the onboard recovery systems, according to ACTS.

A study by Carnegie-Mellon university determined that the automobile systems would cost $3.5 billion more than the Stage II systems.

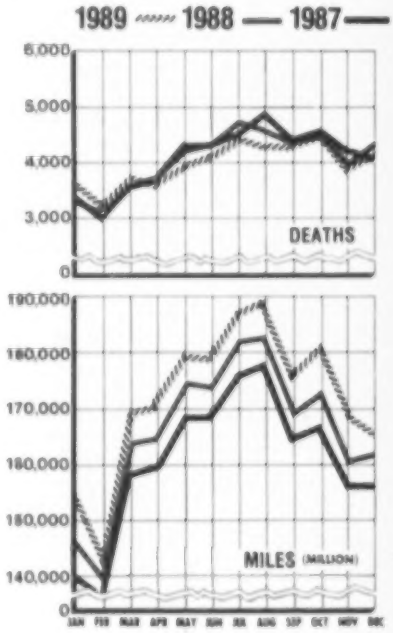
"Collecting the vapors at the pump actually works better than onboard control systems," ACTS said. "And they clean up the air without creating safety problems for American motorists."

1989 Traffic Fatalities Down 4%

BY MARY E. JOHNSTON and URSULA ZUEHLKE

TRAFFIC SUMMARY

Month	Deaths 1989	Deaths 1988	Change
December	4,080	4,350	−6%
12 months	47,000	48,900	−4%



DEATHS for the 12-month period ending December totaled 47,000, a decrease of four per cent from the 1988 12-month total of 48,900.

Motor-vehicle deaths in December totaled 4,080, a decrease of six per cent from the December, 1988, total of 4,350.

Disabling injuries for 1989 are estimated to be about 1,700,000. These are injuries resulting in disability beyond the day of the accident, and do not include minor injuries which probably totaled as many more.

The cost of motor-vehicle accidents for 1989 is estimated at $68 billion.

Based on preliminary vehicle mileage reports for this year, the estimated mileage death rate for the entire year is 2.3 (deaths per 100 million vehicle miles).

State Experience

Among the 50 states reporting December experience, 31 states had fewer deaths than in the preceding December, and 17 states and the District of Columbia showed increases in deaths. Two states showed no change in the number of fatalities. For the full 12 months, 34 states showed decreases in the number of deaths, while 16 states and the District of Columbia showed increases.

Delaware	−28%
Maine	−23%
North Dakota	−22%
Rhode Island	−19%
Wyoming	−18%
Connecticut	−17%
New Jersey	−16%
Tennessee	−13%
Kansas	−12%
Alaska	−11%
Indiana	−11%
Louisiana	−10%
Vermont	− 9%
Illinois	− 8%
Montana	− 8%
North Carolina	− 8%
Oregon	− 8%
Idaho	− 7%
Kentucky	− 7%
Virginia	− 7%
Maryland	− 5%
Missouri	− 5%
Michigan	− 4%
South Carolina	− 4%
Massachusetts	− 3%
Minnesota	− 3%
New York	− 3%
Florida	− 2%
Texas	− 2%
Hawaii	− 1%
Pennsylvania	− 1%
Washington	− *%

Traffic Deaths By State

Deaths are reported by state traffic authorities. All figures are preliminary. To insure proper comparisons, 1987 and 1988 figures cover the same reporting period as those for 1989.

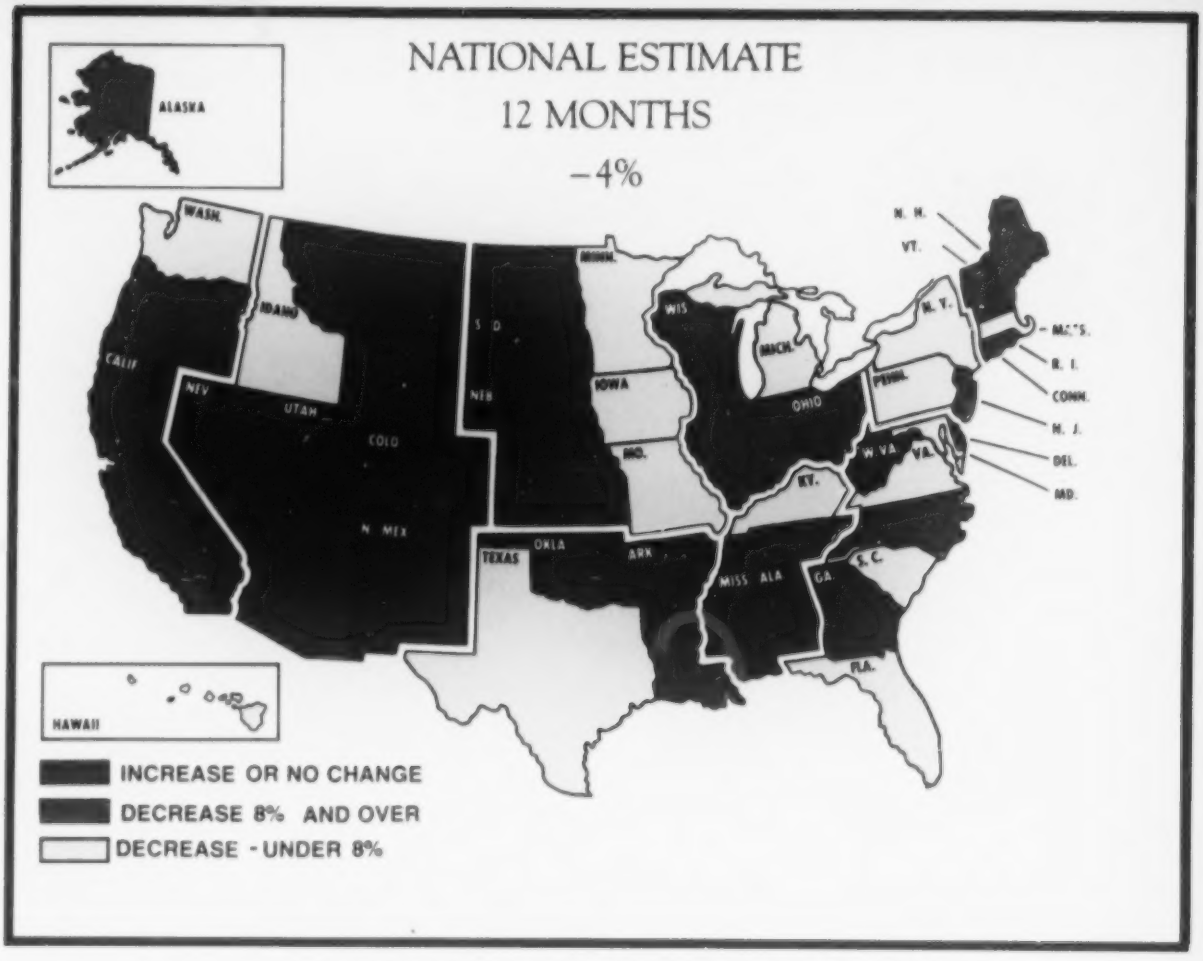
Population Rate: U.S. population rate is the estimated annual number of deaths per 100,000 population, assuming that deaths for the rest of the year will follow the normal seasonal pattern. State population rate is the estimated annual number of deaths per 100,000 population, assuming that the monthly average of deaths will remain at the present average for the rest of the year. U.S. population rate is based on July 1, 1989, population estimate; state population rates are based on July 1, 1988, population estimates, U.S. Bureau of Census, Washington, D.C.

States shown in CAPS have improved in 1989 compared with 1988.

Mileage Rate: The number of deaths per 100 million vehicle miles of travel.

STATE NAME	NO. OF MOS.	DEATHS IDENTICAL PERIODS 1989	1988	1987	PERCENT CHANGES 1988 TO 1989	1987 TO 1989	1989 POP. RATE	1989 MILE. RATE
Total U.S.	**12**	**47,000**	**48,900**	**48,290**	**- 4%**	**- 3%**	**18.9**	**2.3**
Alabama	12	1,004	994	1,101	+ 1%	- 9%	24.6	2.7
ALASKA	12	83	93	74	-11%	+12%	15.8	1.8
ARIZONA	12	859	944	909	- 9%	- 6%	25.4	2.7
Arkansas	12	645	611	637	+ 6%	+ 1%	27.0	3.3
California	12	5,105	5,091	5,261	+ *%	- 3%	18.5	2.1
Colorado	12	522	498	589	+ 5%	-11%	15.8	1.9
CONNECTICUT	12	406	489	451	-17%	-10%	12.6	1.4
DELAWARE	12	118	164	147	-28%	-20%	18.3	1.8
D. of C.	12	75	62	56	+21%	+34%	12.1	2.2
FLORIDA	12	3,016	3,092	2,878	- 2%	+ 5%	25.1	2.8
Georgia	12	1,599	1,591	1,560	+ 1%	+ 3%	25.7	2.5
HAWAII	12	147	149	138	- 1%	+ 7%	13.6	2.0
IDAHO	12	238	256	259	- 7%	- 8%	23.8	2.6
ILLINOIS	12	1,722	1,865	1,682	- 8%	+ 2%	14.9	2.1
INDIANA	12	970	1,093	1,054	-11%	- 8%	17.5	2.2
IOWA	12	511	550	487	- 7%	+ 5%	18.0	2.3
KANSAS	12	416	475	483	-12%	-14%	16.8	1.8
KENTUCKY	12	776	833	850	- 7%	- 9%	20.8	2.3
LOUISIANA	12	800	889	777	-10%	+ 3%	17.9	2.7
MAINE	12	190	246	228	-23%	-17%	16.0	1.5
MARYLAND	12	746	788	823	- 5%	- 9%	16.4	2.0
MASSACHUSETTS	12	682	703	677	- 3%	+ 1%	11.6	1.5
MICHIGAN	12	1,606	1,674	1,591	- 4%	+ 1%	17.5	2.0
MINNESOTA	12	595	612	530	- 3%	+12%	14.0	1.5
Mississippi	12	714	691	757	+ 3%	- 6%	27.2	3.1
MISSOURI	12	1,042	1,095	1,046	- 5%	- *%	20.4	2.3
MONTANA	12	181	197	233	- 8%	-22%	22.4	2.1
Nebraska	12	294	260	296	+13%	- 1%	18.4	2.0
Nevada	12	307	286	262	+ 7%	+17%	30.5	3.2
New Hampshire	12	190	163	179	+17%	+ 6%	18.0	1.9
NEW JERSEY	12	882	1,053	1,024	-16%	-14%	11.5	1.5
New Mexico	12	537	489	567	+10%	- 5%	35.8	3.3
NEW YORK	12	2,112	2,187	2,269	- 3%	- 7%	11.8	2.2
NORTH CAROLINA	12	1,451	1,580	1,587	- 8%	- 9%	22.6	2.3
NORTH DAKOTA	12	81	104	101	-22%	-20%	12.1	1.2
Ohio	12	1,700	1,699	1,692	+ *%	+ *%	15.8	2.1
Oklahoma	12	651	634	604	+ 3%	+ 8%	19.9	2.1
OREGON	12	622	677	616	- 8%	+ 1%	22.8	2.8
PENNSYLVANIA	12	1,875	1,893	1,924	- 1%	- 3%	15.7	2.2
RHODE ISLAND	12	100	124	100	-19%	0%	10.1	1.7
SOUTH CAROLINA	12	998	1,035	1,080	- 4%	- 8%	29.1	2.7
South Dakota	12	151	146	134	+ 3%	+13%	21.3	2.3
TENNESSEE	12	1,073	1,229	1,216	-13%	-12%	22.1	2.5
TEXAS	12	3,271	3,337	3,188	- 2%	+ 3%	19.5	2.1
Utah	12	302	298	298	+ 1%	+ 1%	18.0	2.4
VERMONT	12	116	128	119	- 9%	- 3%	21.2	2.1
VIRGINIA	12	1,000	1,070	1,021	- 7%	- 2%	16.9	1.7
WASHINGTON	12	777	780	778	- *%	- *%	17.1	1.9
West Virginia	12	468	461	469	+ 2%	- *%	24.7	3.1
Wisconsin	12	816	811	815	+ 1%	+ *%	17.0	1.9
WYOMING	12	127	155	129	-18%	- 2%	25.9	2.1
Puerto Rico[#]	12	481	600	644	-20%	-25%	17.7	—
Virgin Islands[#]	12	12	18	16	-33%	-25%	21.6	—
— CANADIAN PROVINCES —								
Alberta	12	488	461	509	+ 6%	- 4%	30.8	
British Columbia	12	583	607	527	- 4%	+11%	27.6	

[#]Not included in the TOTAL U.S. death count or rates.
*Less than 0.5%.



MOTOR-VEHICLE DEATHS AND CHANGES TOTAL U.S.

	Deaths				Percentage Changes		
					Corresponding Month		4 Months Moving Avg.+
Month	1986	1987	1988	1989	1987-1989	1988-1989	1988-1989
January	3,274	3,301	3,390	3,530	+ 7%	+ 4%	+ 2%
February	2,814	2,997	3,130	3,150	+ 5%	+ 1%	+ 2%
March	3,559	3,517	3,600	3,620	+ 3%	+ 1%	+ 4%
April	3,607	3,621	3,760	3,540	− 2%	− 6%	− *%
May	4,331	4,264	4,210	3,860	− 9%	− 8%	− 4%
June	4,460	4,279	4,320	4,080	− 5%	− 6%	− 5%
July	4,704	4,472	4,720	4,440	− 1%	− 6%	− 6%
August	4,895	4,815	4,550	4,330	−10%	− 5%	− 6%
September	4,197	4,300	4,370	4,250	− 1%	− 3%	− 5%
October	4,244	4,535	4,520	4,330	− 4%	− 4%	− 4%
November	3,920	4,169	3,980	3,790	− 9%	− 5%	− 4%
December	3,860	4,020	4,350	4,080	+ 2%	− 6%	− 5%
TOTAL	47,865	48,290	48,900	47,000	− 3%	− 4%	

The 1986 and 1987 figures are from the National Center for Health Statistics. The 1988 and 1989 figures are National Safety Council estimates.

+Four Months Moving Average is based on changes between the totals for four months instead of one month. For example, the December figure shows the change between the totals for September - December, 1989, and September - December, 1989, etc. Adding several months together tends to smooth out single month changes which may be affected by differences in the number of weekends in month from one year to the next, random variations, etc.

*Less than 0.5%.

CONFERENCE ANNOUNCEMENT

INFORMATION SYSTEMS FOR HIGHWAY SAFETY:

16th International Forum on Traffic Records Systems

JULY 16-19, 1990

SHERATON BAL HARBOUR HOTEL—BAL HARBOUR, FLORIDA

Mark your calendar now to attend the *only international conference on traffic records systems* at the Sheraton Bal Harbour Hotel. The traffic records forum is cooperatively organized and supported by 15 traffic safety agencies, offering you a variety of viewpoints and vital information. Don't be left out of any of these discussions!

The 16th International Forum will provide interesting perspectives on how information systems are vital to our understanding of some of the highway safety issues facing us today. It will also provide information on the newest technological advances being applied to records systems development to offer you a balanced overview of traffic records and information system development.

Whether you deal with city, county, state, or federal records systems, whether you design, manage or use traffic records systems, whatever the scope of your needs – or size of your department or budget, you'll take home valuable information from this forum.

Nearly every highway safety discipline (enforcement, engineering, research, program management and motor vehicle administration) requires TRAFFIC RECORDS for problem identification, project planning and program evaluation. That's why these special sessions will deal with such critical topics as:

- commercial driver laws
- occupant restraint useage analyses
- DUI studies
- accident location systems
- engineering issues such as construction zone accidents
- tort liability
- optical disk/optical scanning technology
- enforcement's use of new technology
- integrating court records into traffic records systems
- evaluation of 65 mph speed limit
- and development of EMS systems
- and some 60 or more interesting and educational subjects

Plan to attend the Traffic Records Forum in July, where you will hear four days of presentations, exchange ideas with hundreds of traffic safety professionals and see what's new in the Traffic Records Showcase and in the exhibit areas.

For more information – and to receive your registration packet, please complete the form below and mail it to the address indicated. Don't wait. Make your plans to attend TODAY!

Only those persons/organizations returning this form will receive additional information on this important forum.

NAME(S) OF ATTENDEE(S) _____

_____

ORGANIZATION _____

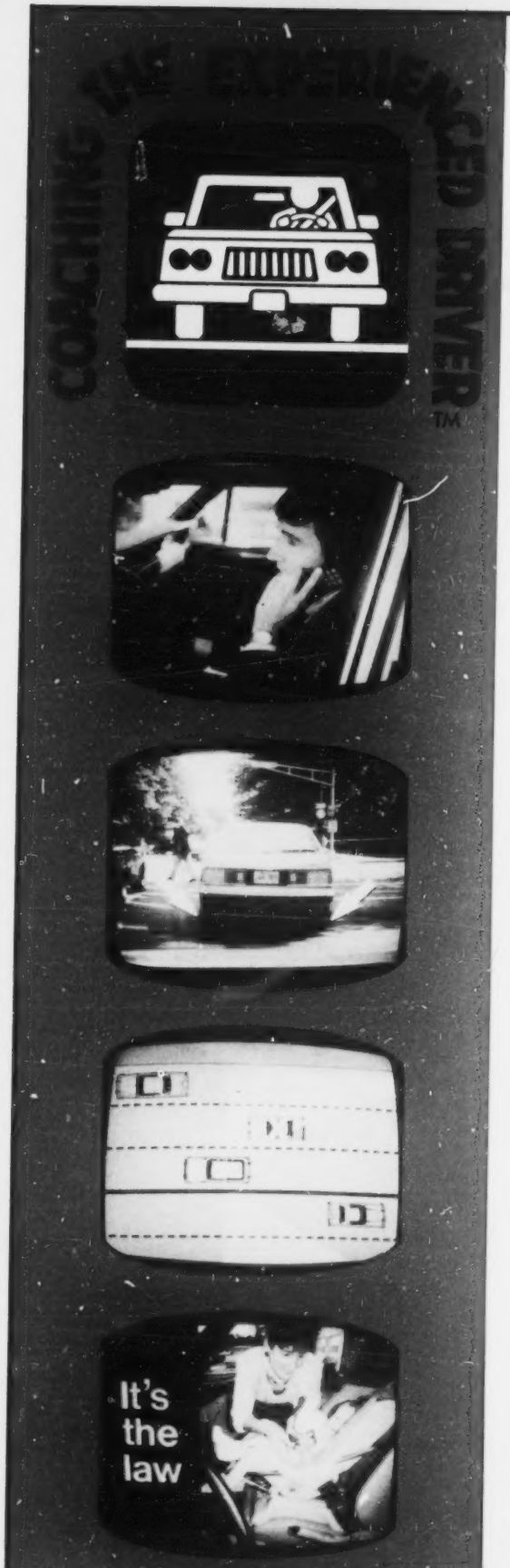
ADDRESS _____

_____

BUSINESS PHONE _____

Return completed form in an envelope to: Traffic Records Systems Forum
NATIONAL SAFETY COUNCIL
444 N. Michigan Ave.
Chicago, IL 60611

CALL (312) 527-4800, ext. 8405 and ask for Ted Dudzik



COACHING THE EXPERIENCED DRIVER™

FLI'S FIRST "COACHING" COURSE IS NOW EVEN BETTER . . .

. . . with ALL NEW "live" slides — increasing in number from 100 to 230 — produced in video format with bold graphics to focus instruction

BUT THE FORMULA THAT MADE IT SO SUCCESSFUL REMAINS THE SAME . . .

- A 3½ hour course for passenger car drivers
  - —40 minute videotape (includes 7 minute film and slides)
  - —Fully scripted Leader's Guide
  - —Trainee workbooks
- Trainee participation throughout — no lecturing
  - —Acknowledges and draws from trainees' driving experience
  - —Presents new information that trainees analyze and discuss
- No yearly leasing
- No instructor certification
- Perfect as a refresher course or as follow-on to your current training

National Safety Council

FLI®

FLI Learning Systems, Inc.

444 N. Michigan Ave. • Chicago, IL 60611
Toll free: 1-800-621-7619 Ext. 8502
Outside IL: 312-527-4800 Ext. 8502